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Ethical Challenges and Opportunities for AI in Accounting Practices: A Comprehensive Analysis

Ahmad Yousef Areiqat[1*], Hanan Abdelsalam Nimer Jaber[2]

[1]Department of Business Administration, Business School, Al-Ahliyya Amman University, 19328, Amman, Jordan; ahmadareiqat@ammanu.edu.jo (A.Y.A.)
[2]Department of Accounting- Business School Al-Ahliyya Amman University, Jordan.

Abstract. The manifestation of artificial intelligence in audiology presents new potential to revolutionize the practices by increasing effectiveness and decreasing error in automation of tasks. Nevertheless, this technological advancement is not without large ethical concerns such as wrongful bias, opaqueness and privacy invasion. This study aims at identifying some of the argued ethical dilemmas and possibilities regarding Artificial Intelligence application in accounting profession particularly on aspects of accuracy, transparency & decision making. The issue seeks to come up with a timely, responsible and strategic suggestion on the implementation of the AI in accounting profession. These ethical dimensions of professional scepticism are examined in this study with both quantitative data collected from 15 accounting firms and qualitative information obtained from 30 industry professionals. The study shows that AI decreases error and enhances the effectiveness of various tasks, however it introduces important bring up ethical concerns which should be solved to avoid the loss of actors' confidence. This paper highlights the need to incorporate ethical approaches when adopting AI technology, to improve the data protection measures in use, and finally to encourage inter-professional cooperation to realize the positive aspects of AI integration humanely.

Keywords: Artificial intelligence (AI), Accounting, Algorithmic bias, Competitive, Data privacy, Ethical challenges, Ethical frameworks, Fraud detection, Gender Inequality, Sustainability, Transparency.

1. INTRODUCTION

The application of artificial intelligence (AI) in accounting professionalizes the practice, providing higher levels of accuracy, as well as optimisation of efficiency and scalability. From culturalization of mechanical and time-consuming actions, to superior and predictive mathematical modeling, AI presents unparalleled potential for improvement of financial reporting, auditing, and of course, decision making. But with these opportunities is where some of the most crucial ethical dilemmas come. Questions related to transparency, accountability, teaching integrity principles to the algorithm, and data protection based on the general principles of accountability are critical to the question of how AI should be implemented in accounting (Areiqat et al., 2024).

AI and autonomous environments work holistically and uniquely in ways that are both beneficial and detrimental, which are why their ethical issues must be evaluated. Since AI systems become integrated in reporting and auditing, its impact introduces a possibility of consequences. For example, while AI can be useful in avoiding fraud, it is also capable of transferring such prejudice to a point where it can lock people out of loans or overstate their abilities to repay loans. These ethical issues are important in order that proper utilisation of AI and in most cases while implementing may have to fully gain the benefits of the knowledge imparted the professional ethical standard as well as the trust from the public may be violated (Brougham and Haar, 2018, Cao et al., 2015). This research is relevant since the incorporation of AI in accounting is now increasing propelled by improvements in techniques such as machine learning technology, natural language processing, and Robotic process automation. There have been controversies, debates and discussions on the technical strengths of AI, but little has been said as regards to the ethical strength of AI. This research will look at the opportunities and risks of using AI in the accounting profession to gain more information about how to adopt AI in the right manner (Baldwin et al., 2006).

It is clear that the ethical considerations of AI in accounting operating environment is a complex problem. Some are those concerning the nature of algorithms, data and information protection and, the degree of the openness of the decision-making process. Also, there is no well-defined mechanism to uphold the code of conduct and professional ethics which multiplies these risks and creates doubt among the stakeholders (Cao et al., 2015). This study aims at identifying some of the argued ethical dilemmas and possibilities regarding Artificial Intelligence application in accounting profession particularly on aspects of accuracy, transparency and decision making. The issue seeks to come up with a timely, responsible and strategic suggestion on the implementation of the AI in accounting profession.

2. LITERATURE REVIEW

2.1. Applications of AI in Accounting

Application of Artificial Intelligence in the field of accounting has facilitated the reduction/replacement of/replacement of tasks by machines, accuracy in the data collected, and analysis of data and decision making from the complex data. Davenport and Kirby (2016) also embraces application of AI in auditing through the use of machines with advanced algorithms that can better provide for notices for anomalies and frauds as compared to

* Correspondence: ahmadareiqat@ammanu.edu.jo

normal methods. In the same manner, Davenport and Ronanki (2018) also pointed out the capabilities of RPA to handle and execute the complex repetitive undertaking such as paperwork input and checking and balancing procedures, allowing the analyst to focus on more important concerns as an accountant.

Ghasemi et al. (2011) in their article argue that the advancement in AI technologies has expanded the boundaries of auditing by bringing forward new approaches towards the perpetuity of checks on business transactions. Such developments enable efficient monitoring and identification of anomalies as relates to reporting of financial data and information. AI has improved the ability and profitability of auditing tasks through automating common and continuously recognizing risks associated with auditing undertakings and activities. In addition, with the adoption of AI, new sets of changes have taken place where accountants have moved from performing routine tasks to being advisors (Glover et al., 2014). This transformation enables a change of focus for accountants from compliance to something more strategic that can help spur a business forward mostly in line with its goals and objectives. AI helps accountants enhance the analytical skills they have, and gives them more adequate tools to make distinctive and suitable decisions about the financial position of their companies (Kokina and Davenport, 2017). As a result, accountants do not only work in classic routines of debtors and creditors but are more and more considered as valuable members of the planning and managing staff. This evolution supports the importance of AI not just for effectively operating organizations but showing the improvement of the accounting position to become a strategic valued partner to organizations to prepare for the increasing challenges of modern day business.

2.2. Ethical Challenges of AI in Accounting

On the one hand, it is seen that AI solution has a lot of advantages that allow finding the best insights to solve the particular problem and overcome a range of obstacles and constraints on the way. According to Issa et al. (2016), algorithmic bias is where the AI system that was designed will deliver unfair results because the data fed into the algorithm originally had bias. This is especially an issue in auditing and in financial reporting where neutrality of information is quite necessary.

Transparent (debuggable) decision-making is still a problem for AI, as Wang and Cuthbertson (2015) describe it commonly as the "black box" issue. Such a lack of explainability may erode stakeholder confidence and intensify the process of checking financial reports. Also, Omoteso (2012) further point out that data privacy and data security remain crucial issues because most AI systems need to have access to financial data.

2.3. Ethical Frameworks and Guidelines

Sutton et al. (2016) has suggested that the policymakers should adopt principles-based approach that include; transparency, accountability, and fairness to the application of artificial intelligence. Moffitt et al. (2018) suggest that to promote compliance to the enhanced standards of professionalism and regulation it is necessary to design more industry-specific requirements for AI.

According to Omoteso (2012), organizational leaders planning to adopt AI should set up a strong governance structure regarding the overall proper use of artificial intelligence and infusion of ethical considerations in the use of AI. Such frameworks form the basis by which organisations can respond to ethical issues even as they harness the benefits of AI.

2.4. Opportunities of AI in Accounting

Nonetheless, there are various opportunities of developing accounting practices through embracing AI. In the paper Moffitt et al. (2018) describe how various AI applications can be utilized to enhance financial decision making based on better forecasting and risk management capabilities. Sutton et al. (2016) suggests that AI has beneficial effects of improving audit quality by eliminating human factors that contribute to inconsistency in financial statements.

Li and Zheng (2018) state that the application of AI means making sophisticated measurement tools available for companies of different sizes and industries even those companies, which operate at the stage of startups. This democratization can thus enhance fairness and trigger an innovation in the accounting profession.

3. THEORETICAL FRAMEWORK

This research proposes to apply Stakeholder Theory, Deontological Ethics, and Technology Acceptance Model (TAM) to analyse ethical issues and potentials of AI in accounting processes. These theories afford a proper framework with which to understand how AI affects multiple actors and direct the ethical interfaces of accounting profession.

3.1. Stakeholder Theory

Stakeholder Theory concerns the management of stakeholders' demands in business, and identifies shareholders, employees, customers, authorities and the rest of society as primary actors. With regard to the application of artificial intelligence in accounting, technology has an effect on a number of players including financial reporting, auditing and decision making.

According to Omoteso (2012), advances in technology and AI bring value to the accounting profession by reducing if increase accuracy, efficiency, and organizational transparency. However, there is also the problem of algorithmic predisposition, data leakage, and assertions that this will displace accounting professionals. This theory shows the importance of integrating the cost of AI as a tool with its pros as well as its ethically robust cons with a view of safeguarding stakeholder worth.

3.2. Deontological Ethics

Deontological Ethics gives emphasis on moral principles and duties depending much on the philosophical thoughts of Immanuel Kant. Discovering this paradigm makes most sense in accounting since accountants are governed by ethical rules that protect integrity and fairness while reporting.

Sutton et al. (2016) highlighted that there are two significant issues regarding automated decision making: first, the value of transparency in the contexts of the black box of AI, which is why transparency must define how and why AI reaches the outcomes it does. Moreover, all the biases need to be dealt with in decision-making especially when dealing with issues that require neutral financial assessment (Moffitt et al., 2018). Sutton et al. (2016) draws from these principles by asserting that deontological ethic is a good foundation for understanding AI systems in accounting. As is known, deontological ethics focuses on the Accountants responsibility of following ethics including the confidentiality and accuracy of the reported information. Since this approach addresses ethical responsibilities it is certain that when designing and implementing the artificial intelligence systems will meet the fundamental values of accounting. This include protection of personally identifiable information and artificial intelligence decision making should be accurate and non-bias (Moffitt et al., 2018). Finally, the implementation of deontological elements into the creation, design and development of AI systems not only furthers their build of ethical appeal, but also the components of trust and ensuing accountability as fundamentals to the acceptance and functionality of AI within accounting (Krahel and Vasarhelyi, 2014, Kokina and Davenport, 2017). Such alignment guarantees that the advancement in technology supports the profession while honoring basic principles of professional practice and ethical standards of the profession.

3.3. Technology Acceptance Model (TAM)

The TAM ontology is the theory that defines the manner in which users of a product accept and incorporate technological innovations. Relative to TAM, two factors play specific roles in determining technology acceptance:

1. Perceived Usefulness: The extent to which users believe technology will enhance their job performance.
2. Perceived Ease of Use: The degree to which users find the technology easy to use and understand.

According to Li and Zheng (2018), AI system adoption depends on the usefulness of such systems on the financial reporting and auditing activity of the accountants. However, issues to do with the ethical nature of technology spoil the completion such as data privacy and accountability. Concerns presented by TAM help explain the effects of these concerns on the use of AI in accounting.

4. METHODOLOGY

4.1. Data Collection

The collection of data in the study was as a result of utilizing both quantitative and qualitative approaches in order to gain the most appropriate of the two. The quantitative data was obtained from performance indicators volunteered by the fifteen firms of accountants that integrate Artificial Intelligence systems. The parameters investigated were error rates in financial reporting and auditing, time taken on accounting activities and rate of usage of AI solutions. Data of a qualitative nature were collected from open-ended interviews with 30 participants working as auditors, financial analysts, and developers of AI systems. These interviews included:(Ethical dilemmas, limitations, and opportunities for applying AI in accounting; bias, transparency, and data protection; and utilization of regulatory and professional standards in promoting the proper use of AI in the accountancy profession.) The approach used in this paper offered a multidimensional view of the effects and opportunities of AI across the ethical and practical aspects of accounting.

4.2. Participants

The study targeted 45 participants from which 30 employment practice professional for the qualitative purpose and percentage extraction from 15 organizations for quantitative data. Further, the qualitative group includes; Auditors, financial analysts, and developers of AI systems involved in implementing AI solutions in accounting. All these participants offered insights on ethical issues, prospects, and the consequences of using artificial intelligence in business. In quantitative methodology, for the 15 organizations elicited to have implemented AI in their accounting firms, they provided performance metrics to do with errors, speed, and extent of uptake of the AI solutions. Both individual and organizational inputs were employed to guarantee that the accuracy and coverage of the collected data was comprehensive.

4.3. Data Analysis

To capture AI's impact on accounting practices holistically the evaluation data involved both quantitative and

qualitative analysis. The quantitative analysis applied descriptive analysis on the measures, which gave a comprehensive account of how AI impacts on elements like error rates, efficiency and usage. In order to find quantitative results related to efficiency, paired t-tests were used in correspondence with the pre- and post-implementation of the AI technologies. Besides, the regression approach was used to identify the correlation of the AI adoption with ethical output regarding data privacies and accuracy.

For the qualitative analysis, thematic analysis was used to find out frequent themes and patterns from the interviewed data with focus on the ethical aspect and professionalism Table 4. This way, the set of qualitative insights was divided into specific categories such as fairness, transparency, accountability and methods of its bias. This choice of methods allowed for getting the quantitative results and the subjective perception of AI's application in accounting at the same time.

4.4. Validity and Reliability

This study therefore validated its findings through the use of triangulation in ensuring that quantitative and qualitative data were used in an attempt to provide an overall approach. Exploratory interviews and data collection and analysis methods were earlier performed to develop the research instruments and to include the study aims and objectives. Consistency in data collection was maintained through similar data collection techniques used for all the organizations under this study, besides the interview guidelines that were used to control for the possible interviewer bias, hence, ensuring accuracy of the collected data.

5. RESULTS

5.1. Quantitative Results

5.1.1. Descriptive Statistics

Table 1: Key accounting performance metrics before and after AI implementation

Metric	Pre-AI Implementation	Post-AI Implementation	% Improvement
Error Rate in Financial Reports	12%	5%	58%
Task Completion Time (hours)	15	8	47%
User Adoption Rate (%)	65	85	31%

The application of Artificial Intelligence (AI) in accounting has therefore led to increased on efficiency and effectiveness as summarized in Table 1. 81% of the respondents agreed that the use of AI reduced errors in financial reports by 58 percent from 12% before the introduction of AI to 5% after the use of supplements containing AI. Likewise, task completion times decreased from 15 hours to eight hours meaning an improvement of the productivity rate by 47%. An enhanced user uptake of AI tools was substantiated as the figures rose from 65 % to 85 %, an overall uptake changes of 31%. Such results underscore applicability of AI in improving both the specificity and effectiveness of the accounting work, which eliminated classical problems in the field. With the help of automating different processes AI minimizes human mistakes as well as shortens the time required to complete the tasks, thus creating the opportunities for accounting professionals to shift their attention to the matters that require more of their analytical capabilities. Thus, the increasing popularity also assert industry's willingness to adapt to the top innovations increasing the importance of AI for further ethical and efficient accounting development.

Table 2: Paired T-test

Metric	t-Statistic	p-Value	Interpretation
Error Rate Reduction	$t(14) = 7.12$	$p < 0.001$	Statistically significant improvement
Task Completion Time	$t(14) = 6.45$	$p < 0.001$	Statistically significant improvement

5.1.2. Paired T-Tests

Table 2 shows the analysis of the paired t-test supports the reply and lends to the appreciation of the large effects of the implementation of AI on accounting performance. The error rate reduction also registered highly significant at t-value of 7.12 and at $p < 0.001$ which support the proposition that AI is significant in decreasing the errors made in the financial reports. The same applies to the task completion time that increased its value and became statistically significant with $t = 6.45$, $p < 0.001$, therefore underlining the role of AI in the issue of efficiency boost. These results confirm the hypothesis that AI increases the important aspects of accounting performance in professional practices which supports its importance in the field.

Table 3: Regression analysis

Ethical Outcome	Beta Coefficient (β)	p-value	Interpretation
Transparency	$\beta = 0.42$	$p < 0.01$	Positive and statistically significant
Fairness	$\beta = 0.35$	$p < 0.01$	Positive and statistically significant

5.1.3. Regression Analysis

Table 3 shows that AI has a significant and positive effect on ethical performances in accounting. In the

analysis, the coefficient of transparency had a beta of 0.42 significance level of 0.01, these findings reveal that the principles on ethical considerations of AI systems raises the degree of clarity and openness of the financial processes. Likewise, the coefficients for fairness were 0.35 ($t < 0.01$), suggesting that AI's common factor plays a role in fair treatment within decision-making systems. By bringing such points into the centre-stage of the accounting practices, these findings suggest that the AI can enhance the possibilities of establishing trust and integrity within the accounting field.

5.2. Qualitative Insights

Table 4: Thematic coding.

Theme	Keywords	Participants
Ethical Challenges		
Algorithmic Bias	Biased algorithm, unfair financial evaluations, poor training data, faulty algorithm design, fairness	1, 3, 4, 5, 7
Lack of Transparency	Non-transparency, opacity, black-box solutions, decision-making challenges, explainable AI	2, 21, 29
Data Privacy and Security	Data breach, financial data, GDPR compliance, encryption, secure storage, hacker threats	3, 4, 9, 11
Ethical Opportunities		
Enhanced Fraud Detection	Fraud detection, real-time big data, anomaly detection, suspicious transactions, financial security	1, 6, 8, 10, 19
Improved Decision-Making	Real-time data, accurate information, improved decision-making, forecasting, AI recommendations	5, 6, 12, 15, 18
Increased Accessibility	Smaller firms, analytical tools, affordable software, improved accounting services, better performance	2, 4, 6, 8, 19, 23

5.2.1. Ethical Challenges

5.2.1.1. Algorithmic Bias

Participant 1, 3, 4, 5, 7 stated that:

I believe that the formulation of such algorithms which would lead to unfair financial evaluations…. These biases are normally caused by inadequate training data or the faulty algorithms used in their creation.

The response shows a concern when implementing AI in accounting; that is, implementing a biased algorithm will lead to bias assessment in financial situations. The participant notes that, there is typically a problem of poor training data, or an issue of poor algorithm design used in the system. This puts emphasis on a fact that the quality of collected data and an algorithm used for decision making significantly affects the fairness of an AI system. In such a rigorously professional sector like accounting where accuracy and objectivity are of huge importance, biased algorithms may result in prejudice financial evaluations, including over-weighing certain consumers groups or business types, for example. For instance, if an AI system has been trained on data that was from a time when women in the workforce were poorly compensated compared to men; this premise would yield a new generation of unfair credit worthiness or investment returns for women. In the same way, if it is poorly arranged or the algorithmic model is too simple, some essential factors might not be included in the financial analysis, which in turn, might produce wrong or bias results (Kokina and Davenport, 2017).

5.2.1.2. Lack of Transparency

Participant 2, 21, 29 stated that:

I think main regulation concerns include opacity; decision mechanisms behind AI cannot be explained easily which makes auditing difficult.

The response from participant 2 raises an important factor that affects artificial intelligence implementation—absence of openness. The participant continues the discussion by pointing at the issue of AI decisions' non-transparency, which means the participant can explain what AI has concluded but cannot explain how the AI got to the conclusion. Such opacity is not without its problems, particularly in audit, when financial auditors may be unable to come up with validation on decisions made by technology. This is particularly dangerous in fields such as accounting where precision and responsibility are core to the discipline in question; black-box solutions where the underlying processes are not transparent, are likely to be mistrusted by users. Thus, the issue of explaining the decision-making of the artificial intelligence system is limiting and probing doubts about how exactly the particular decision is made, and if it corresponds to the ethical or legal norms. This should of course be done deliberately with an eye toward future auditability, i.e., in such a way that the decisions and underlying reasoning of the AI in question can be later readily inferred from the data produced (Issa et al., 2016). This might entail the application of principles of explainable Artificial Intelligence (XAI) which help to make a decision of the AI more understandable and well documented, it's financial decisions included and audited.

5.2.1.3. Data Privacy and Security

Participant 3, 4,9, 11 stated that:

I think that there is a lot of data required in training such models, which increases the issue of security for financial information.

Participants 3 and 4 have some worries about data privacy and security, and they claim that to achieve large datasets needed for training such AI models present substantial risk of financial data security. Since financial data is very sensitive, security of the AI systems from data breach is very important. The more data fed to an AI system the bigger the threat from hackers who misuse it or gain control of individuals' vital data, including financial, for their own benefit. The matter is even more important in the sphere of accounting since breaches may cause critical financial and image losses for individuals and organizations (Glover et al., 2014). These risks are rather high at present, and that is why it is crucial to invest in relevant protection measures – data encryption and secure storage. Thirdly, new security audits and the adherence to the rules like the GDPR or data protection rules are also resources needed to prevent such breaches. AI developers need to adopt best practices that would guarantee them protection of data in the accounting sector throughout the AI developmental life cycle (Ghasemi et al., 2011).

5.2.2. Ethical Opportunities

5.2.2.1. Enhanced Fraud Detection

Participant 1, 6, 8, 10, 19 stated that:

Umm…. Due to the effectiveness of utilizing real-time-big data analysis, AI enhances fraudulent activities detection for the security of financial assets.

The statement raises to the fore one of the major opportunities of applying AI in accounting – fraud detection in real time through the means of big data. Due to the increased capacity to cover large amounts of data within the shortest time, AI can quickly recognize peculiarities or abnormalities which might not be detected when auditors are engaged. In accounting, since fraud detection plays an important role for the credibility and reliability of financial institutions and businesses, the systems can alert about the suspicious transactions, novelties, differences, irregularities of the pre-identified standard pattern associated with a fraud (Glover et al., 2014, Davenport and Kirby, 2016). Additionally, the fact is that AI works in real time, and this is essential as it cuts the time between the fraud activity and its identification. It is important in order to avoid possible monetary investments loss and other harm to organization's reputation. Also, as the systems are used, and trained with more data, the ability to identify new fraud patterns gains further effectiveness. Yet, interestingly, while these measures improve the AI-based fraud detection, the latter should be set up properly and receive updates from time to time to respond to new fraud techniques (Davenport and Ronanki, 2018). Other issues that need to be solved include the data protection and the disclosure when using AI based fraud detection system.

5.2.2.2. Improved Decision-Making

Participant 5, 6, 12, 15, 18 stated

In doing so, AI supports accountants to make a better decision since the information it offers is up to date and often accurate.

Both participants 5 and 6 highlight how important information analysis support by the AI is in the work of accountants. This capability helps accountants to make the right decisions in order to improve their organizational performance. AI benefit accountants in their ability to obtain the latest information on financial data, which is due to its capability to process large amounts of data in real-time. Data furnished by AI are not only real time, but are generally more accurate than conventional data and often prevent mistakes that may be inherent with disparate data sets. Automated systems also help to make new suggestions about the company's financial state and the tendencies of financial results, based on patterns that are not easy to detect with conventional methods (Davenport and Kirby, 2016). Secondly, AI can provide original self-service options, for example, entry of simple transactions or account reconciliation, thereby sparing more time to professional accountants. With the advancement in AI the following areas become useful; in the case of accountants; it assists in predicting the future financial needs thus enhancing forecasting and planning (Cao et al., 2015). But this requires confidence in AI upgrade and implementation of AI systems, which should be made transparent and with due considerations on use of fair data, to ensure the public is confident on the operations of the Al based systems.

5.2.2.3. Increased Accessibility

Participant 2, 4, 6, 8, 19, 23 stated

The four areas are that smaller firms are able to use such tools to gain access to top analytical capacity while improving the quality of accounting services.

With enormous advancement in the availability of the AI tool, the small accounting firms have benefitted from a shift since they can now compete with the large organizations. Earlier, because of the cost and skill needed to install such technologies, new and small scale firms had been locked out from applying superior analytical tools. Earlier, AI-based application was out of reach of small firms due to its complexities and expensive nature, but with intervention of affordable sophisticated software any firm in the market can now engage itself in the AI backed additional services. These tools offer a ready-made means of accessing the elite level of analysis that was previously available only for the organizations with major resources invested (Brynjolfsson and Mcafee, 2017, Brougham and Haar, 2018).

With the help of using AI small and the large scale of firms can enhance the quality of the accounting services required to be provided in some ways: For instance, AI can be applied to process work such as recording, accounting, analyzing and expecting future occurrences which may lead to risk. They also allow these firms to make better decisions through use of analytical tools derived from artificial intelligence results leading to better performance. In addition, the capability to process big data in real time gives the small firms an upper hand of providing accurate and prompt financial reports to their clients, which will lead to the increased satisfaction of the customers (Davenport and Kirby, 2016, Cao et al., 2015, Glover et al., 2014).

In sum, enhanced availability of the AI tools enlarges the opportunities for the growth of the quality of the services that the small accounting firms offer, strengthens their competitive advantage, and enables them to implement the enhanced, previously infeasible technologies. This democratization of AI in accounting inspires innovation, and guarantee that all the organizations are under the fair chance of benefitting from the developments in financial technology.

5.3. Discussion

The study evidence presents an exercise in presenting the positive and negative aspects of introducing Artificial Intelligence (AI) in accounting, respectively. Despite the overall prospects to make accuracy, speed and logistics better through the application of Artificial Intelligence, it also brought within it a set of ethical issues that organizations have to face. On the one hand, the results of the application of AI technologies in accounting indicate the strengthening of the positive impact of technology on mostly a range of significant accounting factors including error frequency in financial reporting and time—and again the effectiveness of time allocation on various accounts (Issa et al., 2016, Kokina and Davenport, 2017). AI spread at its wheels which translates to increased efficiency cutting on the time spent on operations hence allowing the accountants an opportunity to engage on further more intricate work. The self-reported results support this view as participants explained how AI can offer decision-makers constant, up-to-date analysis of market conditions, which has become critical in today's high-stake and high velocity financial milieu (Li and Zheng, 2018, Moffitt et al., 2018).

At the same time, the research revealed a number of major ethical problems related to the application of AI in accounting. The most discussed concerns included in the report were the fairness of the algorithms, explainability, and data protection and sovereignty. An important aspect highlighted was that bias in AI, which is learnt from unstructured or misconstructed datasets or poor algorithm design, can lead to unfair financial assessment, that can harm clients or result in wrong financial report (Omoteso, 2012). In addition, they mentioned that AI decision making is very hard to audit due to the lack of transparency of AI systems. AI's 'opaque' structure can make it challenging for accountants to explain, or even rationalized, how and why some decisions are reached, thus eroding trust in AI-based accounting. Further, data privacy and security concerns were identified as paramount concerns because the implementation of AI systems involve collection of vast amount of financial data and their exposure to actual or perceived malicious attackers were real should there be a lapse in security measures (Sutton et al., 2016).

The ethical dilemmas illustrated in this study correspond to major ethical theories of Stakeholder Theory, Deontological Ethics, and the Technology Acceptance Model (TAM). Stakeholder theory lays more stress on the provision of equal needs and demands of all the participants of the AI usage. This research establishes that issues such as Algorithmic bias, transparency, and data privacy hence posing a significant threat to several users including the clients, the employees, the bodies regulating the companies, and the public at large. Ethically build and applying of the AI systems is the major feature which defines the trust and accountability of the accounting profession (Moffitt et al., 2018). In the same way, Deontological Ethics where the stresses on the principle to follow a set of moral code of rights /duties as well as rules is equally useful here as organizations have a duty to be fair, transparent, and accountable to use the AI. This goes in agreement with the research study findings whereby the participants were insistent that any AI system must be run ethically and especially in financial reporting. Last of all, this study's exploration of the TAM model explaining the factors that affect technology acceptance demonstrates how concerns over complexity and transparency can affect AI tool acceptance in accounting. AI systems must be proven not only to help organization perform their tasks but also to be easy to navigate and explain for individuals and institutions to embrace the technology fully (Omoteso, 2012).

From the identified cases, the following recommendations may be made in an attempt to prevent or overcome some of the ethical issues likely to arise due to the increasing use of AI in accounting. First of all, there are the principles which should be followed when designing ethical AI, including the main ones: explaining, being transparent and non-biased. This would go a long way in enhancing stakeholder credibility and create goodwill so that the implementation of artificial intelligence technology is done with caution. Second, steps towards improving data privacy and security are important (Moffitt et al., 2018). Data security should be implemented polices and procedures to protect financial data, meet the regulation on data protection, and protect the data of the clients. The other is to make an effort to build a set of sector-specific ethical standards since it would be a definite way of specifying how these ethical problems are to be solved in the sphere of accounting. In the best interest of patients, these guidelines should be formulated by standard setting-bodies in cooperation with regulatory and other professional organizations (Sutton et al., 2016). Further, enhanced professional continuing

education for accountants is needed to provide them with both technical content knowledge as well as ethical competencies relating to the deployment of AI instruments.

Thus, therefore, AI has advantages that are relevant to accounting practices such as accuracy and speed and there is also the sets an important ethical question. The problems of AI management can be solved by applicable ethical theories including the Stakeholder Theory, Deontological Ethics, and TAM to help organizations to identify these issues and implement AI technology that would be more favorable for all parties and also accountable and trustworthy. The solutions suggested in this study, therefore, include: ethical AI design principles, upping data privacy and security, producing sector-specific ethical resources, constant training and transdisciplinary cooperation These presented recommendation thus present a road map for firms to address the ethical question arising from AI and optimize for their use in accounting. By doing so, organisations make sure that AI is not a mere amalgamation that enhances different accounting procedures, but also an accountable and ethical technology.

6. CONCLUSION

Consequently, AI offers a wealth of prospects for improvement of the general productivity, reliability, and decision-making in the analysis of the accounts of organisations; nevertheless, it poses immense ethical dilemmas that must be addressed. This research points to the need for policymakers to resolve questions about AI, like bias and transparency as well as data protection before AI's implementation. They also assured that through proper ethical AI design, increasing data protectionism, developing minimum standards for AI industry-specific guidelines, and ensuring constant professional updating, organizations can minimize the adversities that come with the integration of AI into these businesses. However, one has to advance inter professional relationships between accountants, data scientists, and ethicists in order to achieve the best results for the ethical application of AI instruments. Accounting practice is one of the many fields that benefits from the introduction of artificial intelligence as long as programmers involve working ethical frameworks and security measures.

7. RECOMMENDATIONS

In response to ethical issues and to expand the prospect of AI in accounting, the following recommendations are made. Firstly, following Ethical AI Design Principles should be applied aiming to develop, for example, model interpretability and absence of bias which would result in the stakeholders trust. Second, increasing data privacy protection applicable to the organization's policies is a must-have, given the globalization and organizations' efforts to satisfy the data protection regulation. Third, creating the ethical standards for the industry with help of the regulatory and professional organizations will help to mantain the clear vision of such important topics as algorithmic responsibility and data protections. Fourth, there will be constant training and education of the accounting professional on the generational and specific technical and ethical issues of AI. Fifth, recognising and strengthening the relationship between accounts, data scientists and ethicists will assist in the achievement of ethical AI systems. Finally, developing the concept of ethical mindfulness in which ethical considerations become an intrinsic part of organizations, and its practice encourages its employees to report any unethical practices.

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