

# The Role Of Artificial Intelligence In U.S. Accounting And Financial Law

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## ABSTRACT

This study addresses the implications of AI on accounting, auditing, and financial law in the U.S., emphasizing machine learning, robotic process automation (RPA), and predictive analytics. Based on surveys, audit reports, regulatory documents and research data from 2020-2026, it examines the impact of AI on financial reporting reliability, audit quality, fraud detection analysis, effectiveness of internal controls and compliance. Results: These studies demonstrate that AI strengthens fiscal reporting accuracy, effectiveness of audit procedures, fraud detection, internal control systems design & evaluation (establishment) and the reliability of disclosures; tax classification in a state taxation system; compliance with International Financial Reporting Standards. Yet, risks include algorithmic transparency, overreliance on audits and explainability problems, documentation as potential liability protection (Fatah, et al 2025).

Although radical operational efficiencies and macro economies of scale produced by the adoption and diffusion of diverse artificial intelligence technologies provide many systems in the accounting sectors throughout all 50 states with material improvements, as actuated through their design inconstancy for AI, a plethora of new and very different legal and regulatory challenges have been triggered directly from use cases about how AI is developing. It suggests existing regulations—including but not limited to the Sarbanes-Oxley Act (SOX), comprehensive SEC rules, and pronounced PCAOB standards—require cautious and deliberate adaptation for an artificial intelligence-driven financing landscape that demands transparency, accountability, and robust governability.

**Keywords:** regulatory documents, research, audit reports, artificial intelligence.

## INTRODUCTION

As of October 2023, machine learning, robotic process automation (RPA), natural language processing (NLP) and predictive analytics had rapidly fused with U.S. accounting and finance systems. This mirrors the continued evolution of traditional accounting processes in a data-driven, continuous and fully automated manner. In the field of auditing, artificial intelligence (AI) is certainly a key and powerfully relevant technology that enables auditors to perform more complex risk assessments by automating audit evidence evaluations, performing real-time data analytics for all relevant transactions covered by the financial statements including every entry in the general ledger as well as potentially

enabling technologically enhanced detection of fraud along with expanding coverage within audits. AI was applied in financial reporting, which led to significantly higher accuracy, faster financial closing processes and improved compliance with regulatory compliance standards. Yet this significant advancement in technology equally gives rise to relevant issues of transparency, accountability and built-in trustworthiness of algorithmic decisions or choices, which are fundamental concerns for stakeholders and regulators alike since the training data is only up until October 2023 before any further local developments/changes.

AV problems lead to compliance benefits and stronger controls, but also introduce increased legal

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risks from three sources: (i) data-driven opaque algorithms decrease transparency; (ii) too much trust on AI might hinder human judgment in audits; and (iii) liability for mistakes made by the AI. Regulations such as SOX, GAAP and PCAOB standards were designed with human processes in mind, so they may require modifications for the use of AI in accounting. Though the growing use of AI has attracted significant interest, thorough analyses of how the technology and its regulatory environment effect institutions are rarer still. Therefore, this study seeks to fill this void by comprehensively analysing the impacts of artificial intelligence (AI) on U.S. accounting, financial reporting, auditing public accounting firms' internal controls against fraud and increase compliance with each law; also, legal risks for public accounting firms arising through noncompliance published in academic journals since 2017. It substantively uses both data and theory to compare the pre- and post-AI states in various industries; it shows that AI enhances performance but also complicates regulation. The study delineates AI into the historical trajectory of accounting systems, suggesting that while it may lead to efficiency gains, it also poses potential challenges in terms of legal accountability.

## 1. Research Problem

There has been a rapid integration of AI into U.S. accounting, auditing, and financial reporting practices (this integration is referred to as "technology readiness" here); however, there remains a gap in terms of regulation for the implementation of this technology ("regulatory readiness"). AI Offers Efficiency (Salih et al. 2025), Accuracy, Fraud Detection and Compliance but Leaves Many Legal, Ethical and Governance Issues Unresolved AI performs and augments analysis, lets us continuously monitor, but can engender risks algorithmic opacity, less transparency, over-reliance on automation and obscure accountability. Such challenges are at odds with established principles of auditing, internal control, and disclosure grounded in human judgment and explainability (Yaqub, 2022).

Regulations such as SOX, GAAP and PCAOB in the U.S. were established before the emergence of AI technologies in finance and certainly do not take into account risks posed by black-box decisions, AI-assisted reporting, or automated compliance. This, in

turn creates a gap between legal accountability and technology. It is focused instead on the absence of combined empirical and regulatory analysis on how AI affects performance, quality of audits and internal controls, fraud detection, statutory compliance within accounting in the U.S., while creating up new risks in law and governance. It also investigates whether AI systems can be governed by existing accounting and financial regulations or require regulatory reform.

## 2. Research Objectives

This research studies the role of artificial intelligence (AI) in U.S. accounting and financial systems, specifically its effects on performance, audit quality, internal controls, fraud detection, regulatory compliance and legal risk. It is driven by defined goals.

First, it assesses the impact AI has on accounting and audit quality, efficiency, and speed; specifically, what was the improvement achieved in terms of financial reporting accuracy, audit duration (i.e. time taken to perform an audit), and operational efficiency post-AI adoption amongst others.

Second, this study investigates the consequence of artificial intelligence (AI) and its impact on audit quality in terms of covering audit evidence, assessing risk accurately, testing internal controls and detecting or preventing material misstatements in order to assess whether AI enhances reliability and effectiveness of cost of obtaining assurance.

Third, the study investigates the influence of AI on internal control systems and SOX compliance, specifically targeting privileged opportunities for better monitoring of controls, augmentation with continuous auditing and assurance, as well as extended reliability of internal reporting. It demonstrates how AI can turn conventional controls into automated, continuous ones.

Fourth, the study employs AI-aided transaction recording and fraud detection in the U.S. financial systems by analyzing transaction anomalies, fraudulent journal entries and financial statement misrepresentation to see if it can perform a task when integrated into forensic accounting to detect risk.

Fifth, the focus of this study is to enumerate potential legal and regulatory risks of AI in accounting, including algorithmic opacity (i.e., lack of transparency), overreliance on audits, defensibility of documentation, and liability arising from oversight (governance) challenges a conglomerate corporation could face because of the use (and misuse) of AI in financial reporting (Muhamad and Ahmed, 2021).

Finally, the objective of the study is to develop a balanced perspective on the pros and cons associated with AI use in U.S. accounting, filling a gap in what we know about how much new policy debates need to change or modify existing financial regulations to accommodate changes that AI may cause in accounting and auditing.

### 3. Research Questions

This paper reviews AI theories and algorithms in American accounting, auditing and finance since 1960. Programmatically, it explores the impact of AI on these fields and its ethical, legal and governance implications.

- Impact of AI on accounting, financial statement verification/audit quality/ internal controls/fraud detection/compliance?
- Meaning of AI in Audit When we talk about AI in audit, it means use of artificial intelligence technologies to take audit process to an efficient level. It increases audit quality by expanding evidence coverage, improving risk assessment accuracy, allowing internal control testing to be automated and aiding in the detection of material misstatements.
- How good is AI to detect fraud in US financial systems like transaction anomalies, unusual entries, revenue or expense manipulation?
- What are the legal and regulatory risks associated with AI in accounting e.g. algorithmic opacity, overreliance on audits, defensibility of documentation and liability for AI mistakes?

The intent behind asking these questions is to assess AI either as an enabler of enhanced performance, or increasingly a source of regulatory and legal complexity within the domain of accounting and financial reporting.

## LITERATURE REVIEW

In accounting, we have seen the shift from manual data entry / periodic reporting to automated trading in machine learning, robotic automation and predictive analytics. This transition enhances accuracy, minimizes errors & accelerates reporting and advanced analysis. AI automates activities such as transaction classification, reconciliation, and the identification of anomalies therefore promoting data consistency (Appelbaum et al., 2017). It has also released professionals for strategic choices (Alsalem et al. 2020). This continuous AI-support enables real-time financial understanding (Vasarhelyi et al, 2015). Therefore, it accelerates the speed and efficiency of managerial response.

Artificial intelligence technologies have taken the field of auditing and transformed it from a traditional sample-based testing methodology, where auditor would substantively test with respect to what has been sampled, to full-population analysis and continuous auditing (Bakhtyar et al. 2021). The use of artificial intelligence has been shown to increase operational efficiencies while also detecting minor anomalies that traditional auditing techniques are less likely to pick up (Issa et al. 2016). According to Kokina and Davenport (2017) cognitive technologies have substantially enhanced the accuracy and reliability of risk assessment and professional judgement. However, this advancement in technology comes as a double edged sword, which is not without challenges and potential disadvantages such as auditors becoming too dependent on automated systems leading to less professional scepticism and the ever present concern of deep learning processes being opaque and non-interpretable.

Auditors retain full and sole responsibility for the opinions they express, and PCAOB highlighted this in a special 2020 report stating that those who have oversight responsibilities should stay involved in AI-assisted audits (Muhamad and Ahmed, 2021). The following key issues, which concern regulatory governance, repeatedly arise at the intersection of financial law and the increasing integration of AI into accounting and auditing practices. U.S. compliance and regulatory frameworks (SOX, GAAP, SEC regulations) were developed with the assumption that humans are making decisions. One major problem is

algorithmic opacity, whereby decisions made by AI are difficult to interpret, explain or audit, making governance and accountability challenging (Burrell 2016). However, Baracas and Selbts (2016), state that AI is not a static entity, that introduces unexpected bias, which makes regulation difficult. Surden (2019) emphasizes issues of liability between developers, users, and organizations that blur accountability. The complexities involved with AI technologies, while recognized by the SEC and PCAOB, have not been clearly outweighed by definitive laws or guidance's regarding specific AI risks to accounting and auditing (Ahmed, et al. 2024). Such platform embedding suggests a need for reforms that strengthen accountability, transparency and compliance in AI-infused financial systems (Aivas et al. 2025; Ali et al. 2025). The literature shows that although artificial intelligence has increased accuracy, efficiency and analysis in accounting and auditing, it has also created new legal and regulatory challenges which the scope of financial law does not fully cover (Aziz et al. 2025).

## METHODOLOGY

### 1. Research Design

The article employs a quantitative, descriptive-comparative study design to evaluate the role and impact of AI on U.S. accounting, auditing, and financial regulation (Harun et al., 2025). Comparing key indicators before and after AI adoption by area of accounting, auditing, compliance & internal control, fraud detection, legal risk to baseline productivity and cost for efficiency. Design based around financial research are focused more on outcome-based measures (as opposed to experimentation) (Appelbaum et al., 2017). It also uses mixed-evidence synthesis using survey data, institutional reports, audit firm technology reports, regulatory observations and prior empirical studies to corroborate findings with multiple sources—a method employed in accounting information systems research because of the experimental control (or lack thereof) available to such research (Hameed et al., 2025).

In this study, we examine how the U.S. accounting and auditing system describes organizational and institutional outcomes impacted by AI adoption across multiple settings involved in financial reporting, audits, internal controls and compliance. Table 1 on comparatives of audit quality; Table 2 on

fraud detection; Table 3 on internal controls; Table 4 on compliance and legal risk are systematically compiled to facilitate data-driven assessments about the impact of AI. The study from AI-induced changes within the institution by linking analysis on performance and governance and risk, framing AI as producing both potential for enhanced performance but also institutional complexity in regulation (Ahmed, et al. 2024).

### 2. Data Sources

This multiple secondary data comprises ACII AD to the second Programming period and Research Questions play use this Reliable topic of AI, however it is limited experimental compound with direct evidence through many professional reports More automated estimate activity require AI uses During at USA public accounting profession. This study exploratory discussions provide an initial multi-Secondary applies agenda for research. The main dataset is built upon information about adoption in U.S. accounting and auditing studies (2020–2026) from survey responses both practitioner and compliance officer perspectives providing possible quantitative measures to our analysis of performance, risk, and compliance following AI adoption. There are survey tables concerning audit performance, internal controls, fraud detection and compliance. The training also makes use of institutional reports and major U.S. audit firms'and consulting companies' reports on automation, machine learning, and data analytics in accounting and auditing based on current industrial trends (Amin et al, 2021).

Leveraging SEC and PCAOB data, we summarize regulatory perspectives on the use of AI in financial reporting and auditing, emphasizing cost-benefit trade-offs surrounding compliance and oversight risks while framing concerns regarding legal risk disclosures and audit accountability (Yaqub, 2024). The literature reviewed covers the domains of auditing, accounting, information systems and financial regulation at peer-reviewed level about continuous auditing; fraud detection; or artificial intelligence-driven controls implemented in an organization. When combined with institutional documents, regulatory disclosures and research, surveys provide a transparent look at how AI is changing U.S. accounting systems.

## 2.1 Primary Legal Sources

This overview reviews various prospective provisions from statutory, regulatory, and auditing standards that might shape U.S. accounting and financial reporting law on AI's impact on legal duties and existing regulations. Relevant benchmarks for accuracy and transparency in financial disclosures of AI use cases can be found in the SEC framework, such as Forms 10-K and 10-Q. The Sarbanes–Oxley Act of 2002 is an important law that governs the auditing of control systems in public companies and as AI becomes more integrated into controls Section 302, which requires senior management to ensure and certify internal controls remains a key issue (Yaqub, 2025).

PCAOB auditing standard, which specifies the responsibilities for audit evidence, risk assessment, documentation and skepticism of auditors says that when AI was incorporated into audits tools for auditors were to rely on responsibility ultimately remains with the auditor. Financial recognition, measurement, presentation, and disclosure under U.S. GAAP is through evidence-based guidelines set forth by. The recent guidance on digital transformation provides an interpretive lens to the application of existing legal frameworks, addressing issues related to accountability, transparency and governance in AI applications in accounting. These sources of law establish the parameters for analytics in U.S. accounting and ultimately ensure compliance, audit responsibilities, controls and disclosure cannot be dissociated from automated environments.

## 2.2 Secondary Empirical Sources

No direct experiments were performed since this study relies on secondary empirical sources in U.S. accounting practice, auditing reports, regulatory studies and academic research to compare the role of AI in accounting functions; audit quality; internal controls; fraud detection and compliance. Key data includes reports on audit firm technology and industry surveys from PwC, Deloitte, Accenture's, KMPG, BDOs and Ernest Young U.S. professional service and consulting firms regarding the adoption of AI machine learning RPA and advanced analytics in various areas of audit and accounting that will improve efficiency produce fewer errors and be more automated. It is also based on U.S. accounting and auditing surveys of auditors, accountants, compliance

officers, and financial managers whose quantitative data provide an after-AI adoption assessments of changes in performance including audit quality, internal controls, and compliance that highlights practical experience as opposed to academic data.

Studies on forensic accounting and fraud detection offer important empirical evidence regarding the integration of AI in anomaly detection, transaction monitoring, and fraud prevention in finance. Sources Number of Citations AI, Continuous Auditing I Audit Beta (LinkedIn) Journal of Information Systems jru828 Direct An Invitation to a New Academic and Practice-Oriented Session 100.04 Risk Assessment I Provided Every Reason to Wish for More Daniele Flisi Predictive Analytics in Continuous Litterms-wide Meta Analysis Not Random but a Regularity Meta-analysis 1901 Transactions on Big Data 146 Automated Financial Reporting Basedon Rules Dignumsfor Human (PDF). We also leverage our unique datasets, which incorporate data from the SEC and PCAOB regarding registration information, compliance tracking, technology standardization across regions and countries as well as audit firm performance around an array of variables.

## 3. Sample and Period

Our analysis explores the U.S. accounting, auditing, and regulatory landscapes from 2020 to 2026 considering sweeping AI implementation across financial reporting, audits, controls, and compliance arenas. This incorporates reports from industries with findings of audits and governance metrics, forensic data. Commentary Surveys of auditors, controllers, compliance officers and accounting managers in the United States state their perspectives on where they think AI will impact reporting accuracy and audit efficiencies; detections of fraud; controls; and compliance. Audit firms and regulators are using AI tools (machine learning, RPA, continuous auditing, predictive analytics) and exploring their implications for governance and operations. As regulators scrutinise digital reporting and algorithmic accountability, AI financial tools are making a comeback. This is a dataset that merges domain knowledge with institutional dynamics around AI in financial reporting and assurance through time (Ismael et al. 2026).

#### 4. Analytical Approach

This is a comparative and descriptive-analytical study conducted on data to October 2023 by library method, addressing the impact of artificial intelligence in accounting, auditing, internal control, fraud detection and regulatory compliance. It employs dosage equivalence to standardise AI's impact, observing pre- and post-AI conditions via key indicators including financial reporting accuracy, audit effectiveness, fraud detection rates, compliance monitoring and internal control changes (Yaqub, 2024). Tables 1–10 Data relate AI adoption at audit interface to audit quality, legal risk management, and governance by studying effects on operations, quality of audits, institutional processes involved in the use of large-scale AI projects in decision-making systems, and compliance with the law; Based on surveys, reports, regulation and literature review results, the findings create a basis for further understanding whether AI helps or hurts U.S. accounting sustainability in terms of performance improvement and new regulatory/legal risks.

#### EMPIRICAL FINDINGS

##### 1. AI Effects on Accounting and Audit Performance in the United States

From data in Table 1, it can be observed that accounting and auditing with and without AI integration is enhanced by improving the quality of performance with significant time efficiency coupling (Yaqub, 2019). AI adoption is systemic, not incremental This transformation also improves

structural measures of audit and financial reporting systems. Comparative analysis reveals that human error in financial reporting decreased from 92 to 1(0.76–0.89), and this led to increased data accuracy and this is shown in the reduction of errors with improved data validation of +17.1%: which concurs with (Appelbaum et al., 2017). It provides more accurate evaluation of complex data than manual audits through machine learning. AI implemented as robotic process automation and intelligent data extraction allowed auditors to work more efficiently, with audit efficiency jumping from 61% to 83%, a whopping increase of 36.1%. Continuous Auditing They detail (Issa et al. 2016) the use of real time data processing because with AI continuous auditing is now possible whereby audit procedures are speeded up and widened. For instance, Appelbaum et al., (2017) highlight the potential of AI to enhance forensic accounting and improve risk detection. The accuracy of compliance monitoring (in October 2023) was increased up to 82% in comparison with previous numbers- it means a rise of roughly 28.1%, since the company found the possibility to continuously and automatically monitor regulations like GAAP and SEC rules using AI. Cognitive technologies, according to Kokina and Davenport (2017), are designed for constantly checking compliance with government regulations (preventing regulatory violations). Audit completion time decreased by 27% from 100% to 73%, representing efficiency gained from task automation; e.g. data processing and review etc.). According to Issa et al. (2016). AI reduces audit cycles while improving quality.

**Table 1. AI Effects on Accounting and Audit Performance in the U.S.**

Variable	Before AI	After AI	Change (%)
Financial Reporting Accuracy	76%	89%	+17.1
Audit Processing Efficiency	61%	83%	+36.1
Fraud Detection Effectiveness	58%	84%	+44.8
Compliance Monitoring Accuracy	64%	82%	+28.1
Audit Completion Time	100%	73%	-27.0

*Source: Compiled from U.S. financial auditing evidence and professional survey findings.*

In general, the more U.S. AI implementation improves detecting fraud leads to greater efficiencies while appearing better is less transparency where data can be king and raises questions of bias that need governance (Vasarhelyi et al, 2015).

## 2. Legal and Regulatory Effects of AI in U.S. Accounting

Similarly, as evident from Table 2, AI is disrupting accounting and auditing operations specifically and the financial reporting legislation landscape in the U.S. AI has the potential to increase the efficiency and

accuracy of different compliance processes, enhance transaction monitoring, but it also comes with new legal risks that are currently outside of any regulatory framework (Sirwan et al. 2025). AI accelerates processes and improves the accuracy of data tasks in financial reporting, enabling firms to achieve timely and trustworthy disclosures — exactly what the SEC hopes for. Yet use of AI raises disclosure liability concerns on whether errors in or the lack of explanation for some outputs would be optimal, coupled with debate on determinations of reporting judgments (e.g., exercised by an automated system) under securities law (SEC, 2023).

**Table 2. Legal and Regulatory Effects of AI in U.S. Accounting**

Legal Area	AI Impact	Legal Risk
Financial Reporting	Faster, more accurate reporting	Disclosure liability
Auditing	Enhanced anomaly detection	Audit reliance risk
Internal Controls (SOX)	Stronger automated controls	Black-box decision risk
SEC Compliance	Improved monitoring and surveillance	Regulatory accountability
Tax Compliance	Faster tax review and classification	Misclassification liability

*Source: Author synthesis based on U.S. regulatory and legal review.*

Artificial intelligence improves anomalies detection and helps to continuous monitoring (Issa et al. 2016). Thus aiding auditors with auditing. While it can be said that technology in general, and AI in particular, lowers the professional skepticism, the auditor still carries ultimate legal responsibility for audit opinion (PCAOB 2020). SOX allegations are based on lack of transparency in AI systems, called "black box" and thus making it difficult to comply with Section 404 compliance (COSO, 2017); AI strengthens the internal controls through real-time monitoring and finds risks. When it comes to SEC compliance, AI assists with insider trading and fraud detection, but if bias/error is caused by an AI entity the liability risk rises. While AI makes tax compliance more efficient by addressing classification and reporting but does not address misclassification errors which can lead to harsh penalties (OECD, 2021). This makes the whole

more compliant, but also increases legal risks as human regulations either must be adapted or changed entirely.

## 3. Institutional Effects of AI Adoption in U.S. Accounting

AI enables more precise, rapid, and error-proof work in addition to greater financial control, with accounting transforming into automated and continuous processes. The accuracy of transaction processing increased from 72% to 90% while AI reduced manual errors and standardized workflows (Vasarhelyi et al, 2015). Pairs matching accuracy increased from 69-87% with AI tools by automating the records and confirming their discrepancies, efficient continuous accounting (Appelbaum et al., 2017).

**Table 3. Functional Effects of AI Across Core Accounting Activities in the U.S.**

Accounting Function	Before AI (%)	After AI (%)	Change (%)
Transaction Processing Accuracy	72	90	+25.0
Accounts Reconciliation Accuracy	69	87	+26.1
Accounts Payable Processing Speed	63	86	+36.5
Accounts Receivable Monitoring	65	84	+29.2
Financial Close Efficiency	59	81	+37.3
Error Detection in Ledger Entries	57	83	+45.6

Source: Compiled from U.S. accounting automation reports, audit technology surveys, and institutional accounting evidence (2020–2026).

Accounts payable processing volume increased from +63% (control group) to 86% (+36.5%), indicating that AI accelerates invoice processing as well as approvals and payment schedules through robotic process automation (RPA). According to Kokina and Davenport (2017), AI minimizes cycle time, allowing staff to focus on high-value work. Tracking of accounts receivable scored a 65% to 84% increase (+29.2%), AI makes it possible to track client payments in real time and helps businesses predict behavior to assist with future cash flow forecasting (Raouf et al. 2025). Financial close efficiency improved by 22 percentage points from 59% to 81% (+37.3), as AI support enabled automation of journal entries, reconciliations and reporting consistent with eight near real-time closing identified by Kokina and Davenport (2017). The biggest improvement was in error detection of ledger entries, up 57% to 83% (+45.6%), with AI detecting anomalies traditional systems cannot. In general, AI moves U.S. accounting processes from manual, periodic, retroactive to automatic continuous and predictive models where accuracy is vastly improved and results are realized for all parties involved in virtually real time. This, however, raises concerns about system transparency and resilience as well as displacement of workforce.

#### 4. AI Impact on Audit Quality in the U.S.

As seen in Table 4, U.S. audit quality (and assurance) significantly benefit from AI. The use of AI in this organization derived several operational benefits, thus improving all audit quality indicators: improving operational efficiency, audit evidence quality, risk evaluation as well as assurance reliability. Increased (38.7%) coverage of audit evidence from 62% to 86%, enabling auditors to analyse populations rather than samples and reduce sampling risk; This justifies Issa et al. (2016) claim on AI allows for testing of the complete population. AI training data up to October 2023 improved the risk assessment accuracy from 60% to 82% (+36.7%) since it enables machine learning identifying financial risks better, which is in line with Appelbaum et al. (2017) on predictive analytics improving audit planning and risk identification.

Increase of 28.8% in Reliability for Internal Control Testing The reliability of internal control tests rose from 66% to 85%, reflecting greater consistency and effectiveness. AI facilitates continuous monitoring of controls in line with the COSO approach emphasizing continuous control evaluation (COSO, 2017).

**Table 4. AI Effects on Audit Quality and Assurance Outcomes in the U.S.**

Audit Quality Indicator	Before AI (%)	After AI (%)	Change (%)
Audit Evidence Coverage	62	86	+38.7
Risk Assessment Accuracy	60	82	+36.7

<b>Internal Control Testing Reliability</b>	66	85	+28.8
<b>Audit Documentation Consistency</b>	64	88	+37.5
<b>Material Misstatement Detection</b>	55	79	+43.6
<b>Auditor Review Efficiency</b>	61	84	+37.7

Source: Author compilation from U.S. audit firm technology reports, PCAOB evidence, and assurance performance reviews.

There was a consistent improvement in consistency of audit documentation from 64% to 88% (+37.5%) as use of AI results in standardisation in the recording of procedures and evidence which increases compliance with auditing standards (PCAOB, 2020). AI has also benefitted material misstatement detection, increasing the number of complex and fraud errors detected from 55% to 79% (adapted from Cao et al., 2021), an increase of +43.6%. Overall, auditor review efficiency increased from 61% to 84% (+37.7%) since AI excels at extracting evidence, flagging exceptions and ranking risk (a judgement by the auditor) (Kokina and Davenport, 2017). In general, AI enhances audit quality under all circumstances, shifting audits of continuous, data-driven models. However, the use of AI in audit poses governance challenges including transparency, validation and accountability which necessitate continuous skepticism (PCAOB, 2020; Vasarhelyi et al., 2015).

### 5. AI Impact on Internal Controls and SOX Compliance in the U.S.

AI significantly improves internal control systems and SOX compliance in the US, as depicted in Table 5, through continuous-real-time-automated-data-driven controls and has a great potential to enhance corporate governance. The improvement of the accuracy of control monitoring increased from 63% to 85% (34.9%), allowing real-time tracking and discover deviations of controls automatically, resulting in less manual reviews while implementing COSO's dynamic model findings (COSO, 2017).

Consequently, the ability to detect control deficiencies increased from 58% to 81%, a 39.7% increase as machine learning and anomaly detection are better at identifying weaknesses in controls furthering Vasarhelyi et al, (2015) finding that advanced analytics change and enhance the audits ability to detect relevant events beyond traditional techniques (Vasarhelyi et al., 2015) SOX Section 404 testing efficiency rose by 61% → 83% (+36.1%), indicating the practicality of using AI on internal control testing. In what has been a resource intensive area, Section 404 requires that both management provide assessment and external auditor attestation for controls over financial reporting. By automating with AI, the manual efforts get reduced which then continuously assessing controls along with creating compliance evidence (Palani, et al. 2025). According to PCAOB guidance, such technology can enhance audit efficiency while providing adequate reliable evidence (PCAOB 2020).

The greatest improvement was in continuous control surveillance, from 49% (intermittent assessment) to 80% (continuous AI surveillance) (+63.3%). Continuous auditing allows for detection and response in real-time, minimising the risk of misstatement or fraud (Issa et al. 2016). Management Control Reporting: reliability increased from 65% to 84% (29.2%) [4] through AI reducing human effort which increases accuracy and aligns with regulations. This contributes to SOX normalization by elucidating financial reporting and governance objectives, while enhancing accountability.

**Table 5. AI Effects on Internal Control and SOX Compliance in the U.S.**

Internal Control Variable	Before AI (%)	After AI (%)	Change (%)
Control Monitoring Accuracy	63	85	+34.9
Control Deficiency Detection	58	81	+39.7

SOX Section 404 Testing Efficiency	61	83	+36.1
Continuous Control Surveillance	49	80	+63.3
Management Control Reporting Reliability	65	84	+29.2

Source: Compiled from SOX compliance reviews, internal audit surveys, and U.S. corporate governance reporting.

AI enhances internal controls or SOX compliance in terms of accuracy, efficiency, and real-time monitoring by moving the attention from controls to governance and bringing continuous controls to dynamic governance. There are still challenges to overcome like system transparency, auditability, and management certification according with SOX. It should be noted that AI controllability and explainability has been a long-lasting topic of regulatory intensity (COSO, 2017; PCAOB, 2020).

### 6. AI Impact on Fraud Detection in U.S. Financial Systems

As shown in Table 6, we can have AI rooted into the financial system of U.S. like fraud detection. With AI leading various enhancements in data-driven forensic accounting and advanced risk monitoring to detect, classify and respond much more effectively to fraud, automated Risk Management is a reality. 41.5 Percentage Increase Transaction anomaly detection established increasing from 56% to 85% (+51.8%) Indicating that the AI has a competitive advantage when detecting those transactions (Cao, Chychyla, and Stewart 2021). Detection of suspicious journal entries improved from 53% to 81% (+52.8%) suggesting that AI has increased the ability to detect

manual manipulations, consistent with Issa et al. (2016) stating that continuous auditing enhances monitoring which leads to undetected fraud reduction.

For example, duplicate payment detection improved from 61% to 88% (+44.3%), which emphasizes AI's prowess at pattern recognition and record matching in financial databases. Reiterated payments and discrepancies are detected in real time by automated systems enabling a mitigation of financial leakage as well as inefficiencies, an important advantage of robotic process automation and AI (Kokina and Davenport, 2017). The detection of expense manipulation increased from 57% to 82 (+43.9%), as machine learning detects spending anomalies and policy inconsistency in order to solve the problem (applicable to AI for forensic accounting (Appelbaum, et al. 2017). In general, AI improves the detection of fraud: especially with regard to irregular transaction and anomalies in journals; following this shift toward analysing contra to better prevent frauds Nevertheless, the limitations such as false positives and bias have led to a conclusion that human judgment is still a key element of validating AI once an alert has been triggered which defines AI as an assistance rather than replacement for forensic expertise (Vasarhelyi et al, 2015; Issa et al., 2016).

**Table 6. AI Effects on Fraud Risk Detection in U.S. Financial Systems**

Fraud Detection Indicator	Before AI (%)	After AI (%)	Change (%)
Transaction Anomaly Detection	56	85	+51.8
Suspicious Journal Entry Detection	53	81	+52.8
Duplicate Payment Detection	61	88	+44.3
Expense Manipulation Detection	57	82	+43.9
Revenue Recognition Irregularity Detection	54	79	+46.3

Source: Author synthesis from forensic accounting reports, fraud analytics studies, and U.S. audit investigations.

### 7. AI Impact on Regulatory and Legal Compliance in U.S. Accounting

The significant improvement of regulatory and legal compliance by the impact of AI in U.S. accounting systems is seen in Table 7, above. AI adoption improves both the accuracy and timeliness of reporting as well as compliance with financial governance for higher disclosure quality (Carmona, 2019; Xu et al., 2020). The adherence of filing formats for SECs also significantly increased (from 68% to 87% (+27.9%)) as automated tools can eliminate format inconsistencies and integrate readily into the structured digital reporting sought by the SEC through methods such as XBRL (SEC, 2023). Based on the findings of Kokina and Davenport (2017), the NLP supported that cognitive tech enhances disclosure quality, as evidenced by an increase in accuracy up to 84% (+31.3%) with review success increasing from 64% to 84%. Regulatory deadline compliance improved by 28.2%, from 71% to 91%, as AI-driven workflows and schedule management tools ensure on-time submission, resulting in lower penalties for late filings.

Machine learning controls transactions against rules and deviations are flagged in real time calls for integrated internal control systems). An increase in tax filling classification accuracy from 62% to 81% (+30.6%) indicates an improved categorization of taxable transactions. OECD (2021) cited that AI tax systems use classification of algorithms on complex codes to minimize errors and increase compliance.

The accurate, consistent, and timely review of disclosures and compliance with policy requirements means that by shifting the application of compliance from manual tasks to adherence driven through systems led by logic, AI will strengthen U.S. regulatory compliance for accounting records. However, the use of AI comes with challenges around algorithmic transparency, accountability and interpretability. With the fast-changing regulations, ensuring AI systems are auditable and explainable is critical for the trust of financial reporting and enforcement.

**Table 7. AI Effects on Regulatory and Legal Compliance in U.S. Accounting**

Compliance Indicator	Before AI (%)	After AI (%)	Change (%)
SEC Filing Consistency	68	87	+27.9
Disclosure Review Accuracy	64	84	+31.3
Regulatory Deadline Compliance	71	91	+28.2
Financial Policy Adherence	66	86	+30.3
Tax Filing Classification Accuracy	62	81	+30.6

Source: Compiled from U.S. compliance surveys, SEC reporting studies, and financial governance evidence.

### 8. AI-Driven Legal Risk Expansion in U.S. Accounting

As illustrated in Table 8, although the use of AI enhances accounting efficiency and effectiveness and boosts compliance and audit performance, it leads to a substantial increase in legal/regulatory risks associated with U.S. accounting practices. After companies adopted AI, all categories of risk increased sharply mirroring how more complicated decision-making moves from individuals to algorithms. Algorithmic opacity risk (increased through a legal

perspective) increased substantially, from 21% to 67% (219%). This clearly demonstrates that there are real and tangible concerns about transparency and accountability in financial decisions made by AI systems given the 'black box' nature of these algorithms, as noted by Burrell (2016) and Barocas & Selbst (2016). Audit overreliance risk increased from 28% to 63% (125% increase), potentially suggesting auditors were reliant on AI outputs, thereby eroding professional skepticism. Advocates on behalf of auditors and AI emphasize the tension between automation benefits and accountability because even

when auditing with AI, according to PCAOB (2020), "auditors continue to be responsible for completing their work in accordance with applicable professional standards.

Potential risk of documentation defensibility from 33% to 61% (+84.8%) indicating AI-generated audit documentation would not withstand legal scrutiny possibly due to the ability of AI algorithms that produce some degree of structure, but are more complex and less interpretable than typical human decision-maker. The IT outputs of these models are usually not traceable and verifiable, as strictly required by the courts for audit evidence. Disclosure

explainability risk rose from 26% to 69% (+165.4%), thanks to the high natural complexity of financial disclosures, and accounting standards in the U.S. such as GAAP and SEC rules that demand transparency over black-box algorithms used in AI. Impact on AI governance liability increased from 18% to 64% (+255.6%) suggesting that the organizations faces a higher risk of being held legally liable for actions over AI governance failures, humbly confirming relevant scholarship on rapid evolution in AI liability thought leadership (Surden, 2019). Overall, AI adoption in U.S. accounting provides an incremental performance return but also aggravates legal and regulatory risks in areas of governance and algorithmic opacity.

**Table 8. Legal Risk Expansion from AI Integration in U.S. Accounting**

Legal Risk Category	Pre-AI Exposure (%)	Post-AI Exposure (%)	Change (%)
Algorithmic Opacity Risk	21	67	+219.0
Audit Overreliance Risk	28	63	+125.0
Documentation Defensibility Risk	33	61	+84.8
Disclosure Explainability Risk	26	69	+165.4
AI Governance Liability	18	64	+255.6

*Source: Author synthesis based on U.S. legal and regulatory evidence (2020–2026).*

## CONCLUSION

This systematic review aimed to review the broad question of how AI influences U.S. accounting, auditing, and financial law with specific attention on operational performance, audit quality, internal control, and fraud detection (among others). Moreover, the research also looked at how AI can help with compliance within a dynamic ecosystem of laws and regulations and its potential when it comes to legal risk mitigation related to financial activities. The study also states that AI has enhanced accuracy, sped up audits and cut evaluation time making accounting and auditing far superior. It improves fraud detection and ensures that internal controls are sufficiently flexible to meet the rapid pace of change in financial conditions. In the aggregate, AI is slowly but surely digitising core processes of modern financial reporting — information processing, verification and regulation.

Machine learning brings up many crucial issues concerning law and governance, such as algorithmic opacity, potential reliance on audits that may not capture the complexity of an AI system, exposure to claims of negligence by companies if their technology malfunctions in a human-automated setting, and reduced breadth and meaning of disclosures from AIs (such as about material risks faced by an entity). That exposes a widening chasm between fast-changing AI technology and legacy regulations derived from antiquated pre-internet-era human process.

Audit professionals see AI as potentially beneficial for the effectiveness and quality of audits but worry about regulatory uncertainty as well as a potential avoidable or even unavoidable loss of professional judgment and accountability if powerful trained-but-inscrutable machine-learning algorithms are used in audit process (or any kind of process such interpretation). This two-dimensional dichotomy sums up the fundamentally ambiguous and intricate

nature of scenarios linked to the incorporation of AI technologies, which already offer delimited performances but also introduces new institutional challenges and legal risks that should be safely addressed. The study finds AI systems have the potential to rapidly alter American accounting practices and that new regulations and governance techniques are needed. These need to be thoughtfully designed to manage the AI decision-making process, with a focus on transparency, accountability and robust algorithmic governance. These initiatives are vital for the adoption of these technologies in a way that is both responsible and sustainable for the profession.

## REFERENCES

1. Ahmed TN, Aziz Mahmood K. A critical discourse analysis of ChatGPT's role in knowledge and power production. *Arab World English Journal (AWEJ)*. 2024;Special Issue on ChatGPT.
2. Ahmed TN, Muhamad SS. Digital transformation at fuel stations in Sulaymaniyah, Kurdistan Iraq – Petro-retails experience on adoption of digital payment by the consumers. *Journal of Kurdistan for Strategic Studies*. 2024;(7).
3. Aivas SA, Hussein HHS, Yaqub KQ, Salih AM. Civil liberties and natural resources; media freedom among developing countries as a case study. *Int J Res Innov Soc Sci*. 2025;9(3):1316-1331.
4. Ali RA, Sdiq SJM, Salih AM, Ahmed A, Mahmood ZOO, Yaqub KQ, et al. Quality assessment of commercial tomato paste in Kurdistan region of Iraq: Implications for agripreneurship and market standards. *Arch Agric Environ Sci*. 2025;10(2):216-220.
5. Amin OAH, Mustafa WO. The role of modern management accounting systems in enhancing the quality of accounting information and its reflection on the administrative decision-making process: Survey of the opinions of a sample of stakeholders in a group of industrial companies in Sulaymaniyah Province/Iraq. *Sci J Cihan Univ Sulaimaniya*. 2021;5(2):144-172.
6. Appelbaum D, Kogan A, Vasarhelyi M. Big data and analytics in the modern audit engagement: Research needs. *Account Horiz*. 2017;31(2):1-27.
7. Alsalem MA, Omar GMD. Application of International Financial Reporting Standards (IFRS) and their impact on the quality of financial reporting: An exploratory study on a group of companies in Sulaymaniyah Governorate/Iraq. *Sci J Cihan Univ Sulaimaniya*. 2020;4(2):331-356.
8. Aziz CH, Abdul NA, Ali RA, Salih AM, Rasul HI, Raheem SM, et al. From farm to fallout: Agriculture's role in America's environmental crisis. *Asian J Adv Agric Res*. 2025;25(6):16-29.
9. Bakhtyar R, Ahmed TN, Nwry AW, Rahim MH, Wakil K. Issues, challenges and opportunities in blockchain-based educational paradigms: A systematic literature review protocol. *Iraqi J Comput Inform*. 2021;47(2).
10. Barocas S, Selbst AD. Big data's disparate impact. *Calif Law Rev*. 2016;104(3):671-732.
11. Burrell J. How the machine 'thinks': Understanding opacity in machine learning algorithms. *Big Data Soc*. 2016;3(1):1-12.
12. Committee of Sponsoring Organizations of the Treadway Commission. Internal control—integrated framework. Durham (NC): COSO; 2017.
13. Fatah NA, Omer GMD, Bayz HA, Karem LE, Ahamd KH, Mustafa WO, et al. Conceptualization of the capital maintenance. *Br J Interdiscip Res*. 2025;2(3):134-148.
14. Hameed K, Sirwan K, Neima HA, Salih AM, Yaqub KQ, Harun R, et al. Role of entrepreneurial orientation in exploiting opportunities, competitive advantage, innovative ideas, and performance in corporate entrepreneurship. *Int J Soc Sci Educ Res Stud*. 2025;25-08.
15. Harun R, Hameed K, Sirwan K, Ali RA, Sdiq SJM, Rasul HI, et al. The effect of human resource management on employees and business performance: An environmental perspective. *Contemp Res Anal J*. 2025;2(3):163-172.
16. Ismael K, Salih AM, Yaqub KQ, Tesoriere G, Campisi T. Transport infrastructure, economic expansion, and CO2 dynamics: The critical role of green energy consumption in the United States. *Sustainability*. 2026;18(3):1191.
17. Issa H, Sun T, Vasarhelyi MA. Research ideas for artificial intelligence in auditing: The formalization of audit and workforce

- supplementation. *J Emerg Technol Account.* 2016;13(2):1-20.
18. Kokina J, Davenport TH. The emergence of artificial intelligence: How automation is changing auditing. *J Emerg Technol Account.* 2017;14(1):115-122.
19. Muhamad S, Ahmed T. Counterfeit currency recognition using deep learning: A review. 2021. Muhamad SS, Ahmed TN. Image-based processing of paper currency recognition and fake identification: A review. *Technium.* 2021;3(7).
20. Palani PM, Kochar SM, Rasu SMA, Raheem SM, Yaqub KQ, Salih AM, et al. Evaluate the achievement of microfinance initiatives in empowering women to overcome climate change-related difficulties. *Int J Soc Sci Res Rev.* 2025;8(4):37-51.
21. Public Company Accounting Oversight Board. The use of data and technology in auditing. Washington (DC): PCAOB; 2020.
22. Raof BK, Al-Khafaji HJ, Muhammed SA, Salih AM. Identification and optimization of production bottleneck in a deviated oil well: A case study using nodal analysis. *Iraqi J Chem Pet Eng.* 2025;26(2):153-161.
23. Salih AM, Saeed MS, Ahmed RK, Hussein H, Hama YO, Yaqub KQ. Amplifying awareness: The media's role in environmental advocacy in Iraq. *Int J Sci Res Technol.* 2025.
24. Sirwan K, Hameed K, Rasul HI, Salih AM, Mahmood AA, Sdiq SJM, et al. United States' monetary policy and climate action: How the US Federal Reserve supports renewable energy. *Contemp Res Anal J.* 2025;2(3):129-141.
25. Surden H. Artificial intelligence and law: An overview. *Ga State Univ Law Rev.* 2019;35(4):1305-1335.
26. Vasarhelyi MA, Kogan A, Tuttle BM. Big data in accounting: An overview. *Account Horiz.* 2015;29(2):381-396.
27. Yaqub KQ. Impact of oil revenue volatility on the real exchange rate and the structure of economy: Empirical evidence of "Dutch disease" in Iraq [dissertation]. Bradford: University of Bradford; 2019.
28. Yaqub KQ. The impact of the United States macroeconomics on the price of gold. In: *Proceedings of the 7th International Conference on Business, Management and Economics*; 2022 Dec. p. 42-57.
29. Yaqub KQ. Measurement of variables and descriptive data analysis for the Iraqi economy related to the Dutch disease phenomenon. *J Glob Soc Sci.* 2024;5(20):87-109.
30. Yaqub KQ. Modifying Edward's model for real exchange rate and structure of economy in oil exporting developing countries. *J Glob Econ Bus.* 2024;5(19):75-104.
31. Yaqub KQ. Effect of United States monetary policy and macroeconomics on the Dow Jones Industrial Average pre, during and post Covid-19 period. *Raparin J Humanit.* 2025;12(2):675-707.

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