

Early Impressions

Your SOX 404 Documentation Needs an AI Chapter

Extending COSO to AI-Driven Financial Processes



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Hello Clients and Friends,

We are pleased to share our latest thought leadership piece — Your SOX 404 Documentation Needs an AI Chapter. As AI rapidly embeds itself into financial reporting, we believe the controls conversation needs to catch up. This paper lays out a practical framework for extending your existing SOX program to address AI-specific risks before auditors and regulators raise the question.

AI now drives critical financial reporting processes — revenue recognition, credit loss estimation, lease classification, automated reconciliations — yet most SOX 404 documentation still assumes humans make every key judgment. This **documentation gap** is an **audit time bomb** as the auditors and PCAOB increase scrutiny of technology-driven risks.

Refer to our **AI Controls Framework for SOX 404 Compliance**



The fix isn't a new framework. **Extend COSO 2013 to AI** with the same rigor as ITGC and business process controls:

COSO Component	AI Extension
Control Environment	Board-approved AI governance policy; defined model owner, data steward, and compliance reviewer roles
Risk Assessment	AI risk taxonomy, materiality thresholds, AI fraud vectors, vendor risk evaluation
Control Activities	Input validation, output reconciliation, human-in-the-loop checkpoints, retraining change management
Information & Communication	AI model cards, version-controlled change logs, data lineage, enhanced control narratives
Monitoring	Drift detection, performance metrics, periodic revalidation, KRI tracking

We hope you find this publication useful. This is an evolving area and we would love to hear your perspective — whether it's how AI is showing up in your financial reporting processes, challenges you're navigating with your auditors, or ideas on where the framework could go further. Please don't hesitate to reach out; we look forward to your inputs and feedback.



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Most companies have Sarbanes-Oxley (SOX) programs that meticulously address the risks associated with every manual journal entry approval, but have limited documentation on the AI models that are now critical to transaction processing and recording. This gap isn't just a governance concern; it's a potential controls challenge.

The adoption of artificial intelligence in financial reporting has accelerated at a pace that internal control frameworks were never designed to accommodate. Machine learning models are now embedded in revenue recognition workflows, lease classification engines, credit loss estimation tools, and automated account reconciliation platforms. Yet when SOX compliance teams conduct their control walkthroughs, for most teams, the documentation they produce reads almost identical to what it looked like a decade ago — before a single algorithm touched the financial close.

This disconnect represents one of the most significant unaddressed risks in corporate governance today. Companies that have invested heavily in AI-driven finance transformation are operating with control documentation that may be fundamentally incomplete, creating exposure that external auditors, Public Company Accounting Oversight Board (PCAOB) inspectors, and audit committees are only now beginning to scrutinize.

The question is no longer whether your SOX program needs to address AI. The question is how quickly you can close the gap before someone else notices it.

The Documentation Gap: What Traditional SOX Walkthroughs Miss

Traditional SOX 404 process narratives and control descriptions were built around a fundamental assumption: that a human being makes the judgment call at each critical decision point in the financial reporting process. The narratives describe who performs a task, what system/inputs they use, what thresholds trigger review, and how exceptions are handled. This model works well when the process is deterministic, when the same inputs reliably produce the same outputs through clearly defined logic.

AI-based systems break this model in several important ways.



Model Drift and Non-Determinism

Unlike traditional rules-based systems, machine learning models can change their behavior over time without any explicit code modification. A revenue classification model trained in historical data may begin misclassifying transactions as the underlying business mix shifts. This phenomenon, known as model drift, has no analog in traditional process narratives. There is no “change ticket” logged when a model’s accuracy degrades, because no human initiated a change. The model became less reliable as the world around it evolved.



Training Data Bias and Provenance

The quality of an AI model's output is fundamentally constrained by the data used to train it. If historical training data reflects errors, biases, or anomalies from prior periods, such as misclassified transactions that were subsequently corrected, the model will learn to reproduce those patterns. Traditional SOX documentation focuses on the controls around data inputs at the point of processing. It rarely examines the genealogy of the data that shaped the model's decision-making logic in the first place.



Explainability and Auditability

When a senior accountant makes a judgment call on an estimate or a classification, they can explain their reasoning. They can point to the guidance they referred to, the comparable they considered, and the assumptions they applied. Many AI models, particularly deep learning and ensemble methods, cannot provide this level of transparency. The model produces an output, but the path from input to conclusion is opaque. For auditors trained to evaluate the reasonableness of management's judgments, this opacity presents a fundamental challenge.

Key Insight

The documentation gap is a governance design challenge with significant technology dependencies. Most organizations adopted AI tools through technology teams; however, they never looped in their SOX compliance teams on deployment decisions. The result is a control environment that looks comprehensive on paper but may potentially have significant blind spots in practice.

Mapping COSO's Five Components to AI Controls

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The good news is that organizations do not need to invent an entirely new control framework for AI. COSO's Internal Control — Integrated Framework (2013) remains the foundation. What is needed is a thoughtful extension of each component to address the specific risks that AI introduces into financial reporting processes. Below maps each COSO component to the AI-specific controls that should be documented and tested.

Control Environment



- Board-approved AI governance policy for financial reporting
- Defined roles: AI model owner, data steward, compliance reviewer
- Tone at the top: Executive commitment to responsible AI use
- Competency requirements for personnel overseeing AI in finance
- Ethical AI principles integrated into code of conduct

Risk Assessment



- AI model risk taxonomy specific to financial reporting
- Materiality thresholds for AI-processed transactions
- Fraud risk assessment extended to AI manipulation vectors
- Third-party AI vendor risk evaluation
- Regulatory change monitoring for AI-related guidance

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Control Activities



- Input validation: Data quality checks before model ingestion
- Output reconciliation: AI outputs vs. independent calculations
- Human-in-the-loop checkpoints at material thresholds
- Model access controls and segregation of duties
- Change management for model retraining and parameter updates
- Override documentation when AI recommendations are rejected

Information & Communication



- Board-approved AI governance policy for financial reporting
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Monitoring



- Continuous drift detection with defined tolerance thresholds
- Performance metrics: accuracy, precision, and recall tracked over time
- Periodic revalidation schedule aligned with financial close calendar
- Independent testing of AI controls by the internal audit / SOX team
- Benchmarking against industry standards and peer practices

The critical point is that each of these controls must be documented with the same rigor as any traditional ITGC or business process control. They require defined owners, testing procedures, expectations for evidence, and remediation protocols for deficiencies.

What an AI Control Narrative Looks Like

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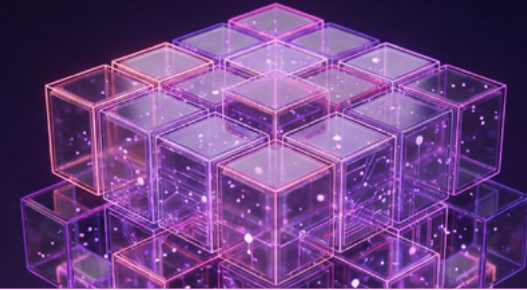
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One practical step an organization can take is to develop AI-specific control narratives that supplement their existing process documentation. Below is a side-by-side comparison illustrating how a traditional process narrative differs from an AI-enhanced narrative for the same transaction classification process.

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Traditional Process Narrative

Revenue transactions are classified by the billing team using established product category codes. A senior accountant reviews classifications exceeding USD 50,000 for accuracy. Exceptions are documented in the review log and escalated to the Controller for resolution. The process is performed monthly as part of the financial close cycle.

AI-Enhanced Control Narrative

Revenue transactions are classified by an ML classification model (Model ID: REV-CLASS-v3.2, last retrained Q4 2025 on 24 months of validated transaction history). The model processes all incoming transactions and assigns a product category code with a confidence score. Transactions with confidence scores below 85% are routed to the billing team for manual classification. All model outputs are reconciled daily against independently derived category totals by the revenue accounting team.

The AI model owner (Senior Manager, Financial Systems) monitors weekly drift reports and escalates accuracy degradation exceeding 2% to the Controller. Model retraining follows the change management protocol AI-CM-001, which requires dual approval from the model owner and the SOX compliance lead. The data steward validates the integrity of training data before each retraining cycle. A human-in-the-loop review is required for all transactions exceeding USD 50,000, regardless of model confidence. Override decisions are logged with rationale in the AI decision audit trail.

The difference is immediately apparent. The AI-enhanced narrative addresses the model's identity, training provenance, confidence thresholds, escalation logic, change management procedures, and the human oversight mechanisms that ensure management retains accountability for AI-generated outputs. This is the level of specificity that auditors will increasingly expect.



What Auditors Will Ask: Anticipating PCAOB Focus Areas

The PCAOB has signaled increasing attention to technology-driven risks in financial reporting. While comprehensive AI-specific inspection guidance has not yet been formalized, the direction is clear. Based on current PCAOB staff guidance, emerging audit quality indicators, and inspection trends observed across the audit firms, organizations should prepare to address the following areas.

Traditional Process Narrative	Auditors will want to see evidence of a formal governance structure. Who approved the deployment of the AI model in a financial reporting process? What was the risk assessment that preceded deployment? Is there a model risk management framework, or was adoption driven purely by the technology team without compliance involvement?
Data Integrity and Lineage	Expect questions about the training data: Where did it come from? How was it validated? Were there known errors in historical periods that could have contaminated the training data set? Is there a documented data lineage from source systems through model training to production output?

Performance and Drift Monitoring

Auditors will ask how the organization knows the model is still performing as intended. What metrics are tracked? Who reviews them? What are the thresholds that trigger revalidation or retraining? Is there evidence of continuous monitoring, or is validation a one-time event at deployment?

Explainability and Management Override

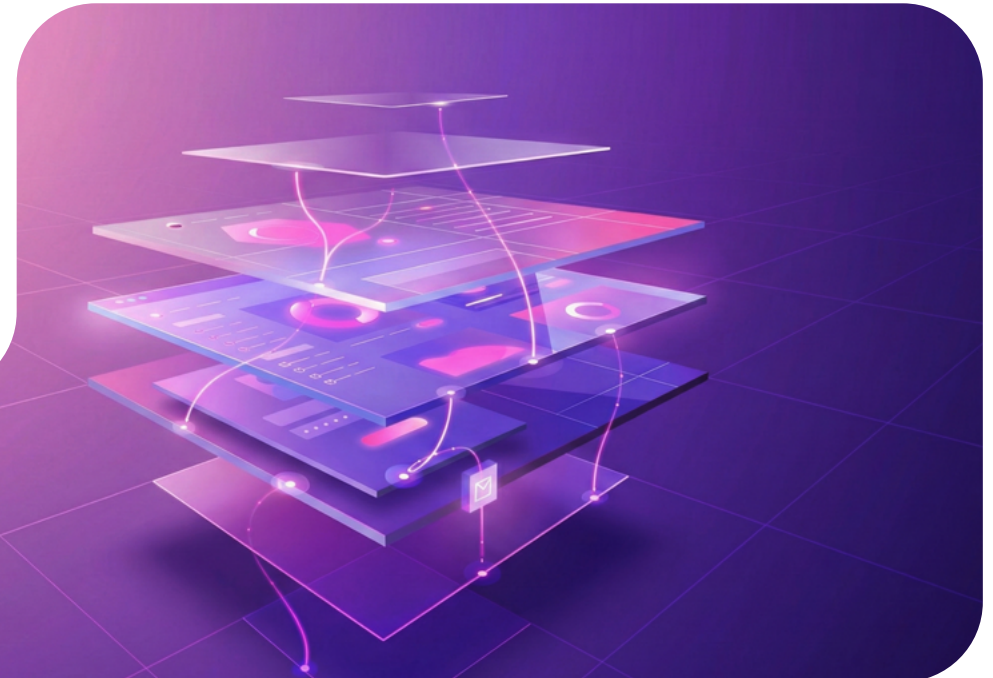
For material estimates and classifications, auditors need to understand the basis for the AI's output. If the model cannot explain its reasoning, how does management satisfy itself that the output is reasonable? What percentage of AI decisions are subject to human review? How are overrides documented?

Change Management

Any modification to an AI model — retraining, parameter adjustments, or changes in data sources — is functionally equivalent to a program change in the ITGC framework. Auditors will expect the same controls: authorization, testing, approval, and post-implementation review.

Practical Tip

Do not wait for your external auditor to raise these questions during the audit. Proactively briefing the audit engagement team on your AI control framework during the planning phase demonstrates maturity and can significantly reduce audit friction and scope creep.



The Uniquus Perspective:

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Why Independence Matters in AI Control Design



There is an inherent structural tension in how AI control frameworks are typically developed. The audit firms possess deep expertise in internal control and financial reporting processes. However, when those firms also serve as a company's external auditor, independence rules significantly constrain their ability to design and implement the very controls they later evaluate. This creates a gap that many organizations struggle to fill.

Non-audit advisory firms like Uniquus Consultech are uniquely positioned to bridge this gap. Without the independence constraints that limit audit firms, advisory-focused consultancies can take a hands-on role in designing AI governance frameworks, building control narratives, conducting gap assessments, and implementing monitoring protocols, working shoulder-to-shoulder with management teams through the entire process.

This distinction becomes particularly important for AI controls, where the design work is deeply intertwined with the technology implementation. Building an effective AI control framework requires someone who can sit with the data science team, understand the model architecture, translate technical specifications into control language that auditors recognize, and then stress-test the documentation against the questions that PCAOB inspectors are likely to ask.

At Uniquus, our approach to AI control framework design follows three principles.

Audit-Ready by Design

Every control narrative, model card, and monitoring protocol we develop is built with external audit in mind. We anticipate what auditors will need to see and embed that evidence trail into the process from inception, rather than retrofitting documentation after the fact.

Technology-Fluent, Compliance-Grounded

Our teams combine a deep understanding of COSO, SOX 404, and PCAOB standards with practical experience in implementing AI and machine learning. This dual fluency ensures that the controls we design are technically sound and operationally practical, rather than merely theoretically compliant.

Scalable Frameworks, Not One-Time Fixes

AI adoption in financial reporting will only accelerate. The frameworks we build are designed to accommodate new models, new use cases, and evolving regulatory expectations without requiring a complete redesign each time the technology landscape shifts.

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The convergence of AI adoption and regulatory scrutiny is not a future concern. It has to be immediately addressed. Companies that wait for PCAOB guidance to be fully codified, or for their auditors to issue a formal deficiency, will find themselves in a reactive posture that is significantly more expensive and disruptive to remediate than proactive design.

The framework outlined in this article provides a practical starting point: extend your existing COSO-based control structure to address AI-specific risks, develop AI control narratives with the same rigor as traditional process documentation, and anticipate the questions that auditors and regulators are already formulating.

The organizations that move first will not only mitigate risk — they will establish a competitive advantage in governance maturity that boards/ audit committees, investors, and regulators increasingly value.

Contact us at www.uniquis.com to schedule a conversation.

Ready to Assess Your AI Control Readiness?

Uniquis Consultech offers a rapid AI Controls Gap Assessment designed for SOX-reporting companies. In as few as four to six weeks, we evaluate your current AI usage in financial reporting, identify documentation gaps, and deliver a prioritized remediation roadmap aligned with COSO and PCAOB expectations.

About Uniquis Consultech:

Uniquis Consultech is a global tech-enabled consulting company that specializes in Accounting & Reporting, Governance, Risk & Compliance, Sustainability & Climate, and Tech Consulting. The Company is co-founded by consulting veterans Jamil Khatri and Sandip Khetan and backed by marquee investors such as Nexus Venture Partners, Sorin Investments, and UST. Anu Chaudhary, a global sustainability and climate specialist with over 25 years of experience, serves as the Global Head of Sustainability & Climate Consulting.

Uniquis has a global team of 700+ professionals led by 85+ Partners & Directors across eleven offices in the USA, the Middle East, and India. The company serves more than 400 clients, including marquee names in each of the markets it operates in. Uniquis is committed to leveraging technology and an integrated global delivery model to provide best-in-class consulting services to its clients.

About Our Accounting & Reporting Consulting Services:

In today's dynamic business environment, organizations are continuously required to adapt to the dynamic shifts in accounting & reporting standards and regulations. Enhanced management reporting requirements and accelerated reporting timelines necessitate increased automation within the finance function. Special events, such as preparing for an IPO/capital market transaction or fulfilling the reporting requirements arising from an M&A transaction, introduce additional complexities and challenges for the finance function.

As a result, organizations need to transform their finance functions from time to time with a focus on people, processes, and technology. Our Accounting & Reporting Consulting (ARC) practice is designed to partner with the finance function through these challenges. Our teams function as an extension of your finance teams to execute your plans seamlessly.

We bring the necessary technical expertise, skills, technology, and bandwidth, enabling you to navigate your plans in real time without adding additional manpower costs within the organization.

A Team That You Can Trust To Deliver



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