Readying Your Accounts Payable for Artificial Intelligence

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Learning Objectives

Understand AI as a transformational AP strategy, not incremental automation

Identify the importance of data quality, governance, and system visibility

Recognize key AI capabilities applicable to accounts payable

Evaluate how to balance AI efficiency with human oversight

Describe the need for continuous monitoring, feedback loops, and improvement

Qualifying for CPE

Remain in session for 50 minutes

Respond to 3 polling questions

Complete post-session survey

Why AI in Accounts Payable?

AP is high-volume, rules-based, and data-intensive

Significant opportunity exists for automation and insight

AI can support end-to-end process transformation

The goal is not just faster processing — it is smarter, more predictive operations

The Reality Today

- Fragmented systems and data silos
- Manual invoice intake, coding, matching, and approvals
- Limited visibility into open liabilities and exceptions
- Processes that are often reactive instead of proactive

What AI Actually Changes

Extracts and interprets invoice and vendor data

Supports intelligent matching against POs, contracts, and receipts

Flags anomalies, duplicate invoices, and unusual payment patterns

Routes work based on policy, risk, thresholds, and exception type

Core AI Capabilities in AP

Data extraction and ingestion

Data transformation and integration

Automated transaction processing and reconciliation

Workflow orchestration and autonomous task execution

Judgment, forecasting, insight generation, and monitoring

Example: The AI-Enabled Invoice Journey

Invoice arrives by email, portal, scan, or PDF

Key fields are extracted and validated

Invoice is matched to PO, receiving, contract, and vendor master data

Routine items move forward; exceptions are routed for review

Results are logged, monitored, and improved over time

Polling Question #1

What percentage of your invoices are processed touchlessly today?

A. 0–10%

B. 11–25%

C. 26–50%

D. More than 50%

E. Not sure

Why Many AP Functions Are Not Ready

Poor or inconsistent data quality

Incomplete system and application inventory

Unclear ownership of data and process decisions

Weak governance around policies, exceptions, and access

Limited monitoring after transactions are completed

Foundation #1: Assess Current State

Inventory AP-related systems, applications, reports, and data flows

Include cloud platforms, on-premises systems, vendor portals, and spreadsheets

Identify interfaces, APIs, and manual handoffs

Assess risks from shadow IT and undocumented workarounds

Foundation #2: Build the Data Inventory

Identify financial and non-financial AP data

Document vendor, invoice, PO, receiving, contract, and payment data

Assign data ownership and stewardship responsibilities

Identify legal, regulatory, retention, privacy, and access restrictions

Foundation #3: Improve Data Quality

Completeness: required fields are consistently populated

Accuracy: values reflect the underlying transaction

Consistency: common definitions and coding structures are used

Reliability: data sources are trusted and controlled

Transparency: users can understand where data came from and how it was used

Polling Question #2

Does your organization have formal AP data governance today?

A. Yes, documented and actively managed

B. Partially, but inconsistent

C. Mostly informal

D. No

E. Not sure

Foundation #4: Establish Data Governance

Define ownership and accountability for key AP data

Create standards for data definitions, coding, and classification

Use metadata to track owner, source, retention, and sensitivity

Align finance, procurement, IT, compliance, and operations

Governance Structure: Not an IT-Only Project

AI oversight should be cross-functional

Finance should help lead business process decisions

IT should support architecture, security, integration, and controls

Compliance, legal, and operations should be involved where relevant

Decision rights should be clear before implementation

Implementation Approach

Plan and design the use case and desired outcomes

Conduct ethical, regulatory, privacy, and control review

Prepare, audit, and cleanse data before deployment

Prototype and test in a controlled environment

Roll out in phases and measure results

Balancing AI Efficiency and Human Oversight

- AI can handle volume, speed, pattern recognition, and routing
- Humans should handle judgment, exceptions, policy interpretation, and override decisions
- Human-in-the-loop controls should be explicit
- Automation authority should increase only as confidence and monitoring mature

Monitoring and Continuous Improvement

Track accuracy, exception rates, processing time, and override activity

Monitor data quality, source reliability, consistency, and bias

Use threshold-based alerts and escalation paths

Capture feedback from users, reviewers, and process owners

Refresh knowledge bases, rules, and models as conditions change

Polling Question #3

What is your biggest barrier to AI adoption in AP?

A. Data quality

B. System integration

C. Governance and controls

D. Staff capacity or change management

E. Unclear business case

Risks to Manage

Data privacy, confidentiality, and access control

Incorrect outputs, hallucinations, or unsupported recommendations

Bias or inconsistent treatment of vendors and transactions

Regulatory, audit, and documentation requirements

Over-reliance on automation without effective review

What Success Looks Like

Higher touchless processing rate for routine invoices

Shorter invoice cycle times and fewer manual handoffs

Reduced duplicate payments, coding errors, and avoidable exceptions

Better vendor communication and payment visibility

Improved spend insight, forecasting, and management reporting

Key Takeaways

AI readiness starts with process, data, governance, and controls

AP is a strong AI candidate — but only if the foundation is sound

Finance, IT, compliance, and operations must work together

Start with focused use cases, test carefully, and scale strategically

Continuous monitoring is essential to sustain trust and value

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