From People- to AI-Powered AP Automation

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Now, let us consider the simple example of a PO-based invoice arriving from a supplier in PDF (image) format attached to an email.

The invoice comes first to the inbox of a budget-owner who, through proper procurement channels, has hired the supplier to perform a service. Budget owner opens the invoice attachment, determines it's legit, and forwards along to a generic AP inbox for processing and payment.

Instead of a person minding the AP inbox, there is now an AI-powered bot fulfilling that role. The bot scans the email message and determines immediately, based on the language, that there is an invoice document attached.

First, the bot might need to perform a number of technical pre-processing tasks to ensure machine readability of the attached invoice. That might include cropping, reorienting, or removing digital "noise" introduced when a person on the supplier's end originally scanned or saved down the document.

Next, a computer vision/OCR engine would read and capture all the relevant bits of information, feeding it to a deep machine-learning model for indexing and classification. Subsequent post-extraction tasks, also powered by natural language processing (NLP) and/or machine-learning (ML) technologies, perform a variety of tasks such as:
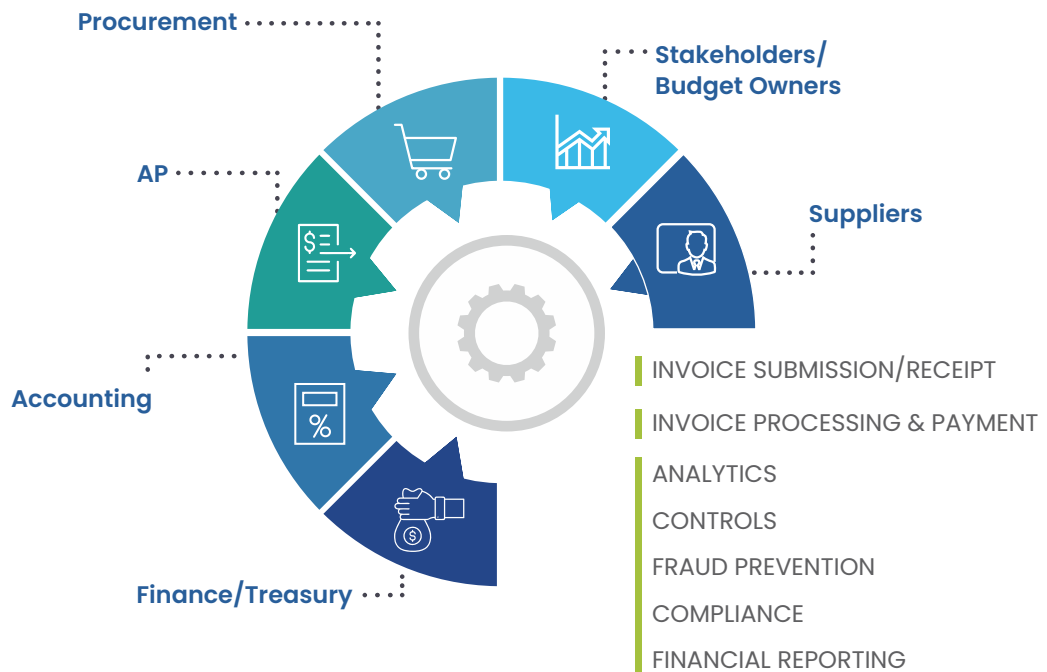
- Validating information/formats

- Converting/normalizing units, lot sizes, currencies, and so forth

- Enriching or filling in missing bits of information to complete records

- Assigning standard or propriety codes needed for mapping and moving relevant data into various downstream taxonomies and applications.

Certain bits of the now-structured data can be simultaneously sent along to:

- An invoice-PO or other n-way document-matching application for internal audit and spend-policy compliance tracking.

- An ERP or financial accounting system that needs the information mapped to a propriety cost-accounting and budget management code structure.

- A procurement application for spend analysis, which needs the same information mapped to a standard item taxonomy or code structure.

- A supplier performance management application that needs to know (via contract or receiving system lookup) if items being invoiced were delivered on time, in specified quantities, at acceptable levels of quality, at agreed/negotiated prices, and so forth.

- An internal cash- or AP-performance management system that ensures negotiated discounts for hitting certain order volumes, early or on-time payment targets, and so forth are being consistently realized.

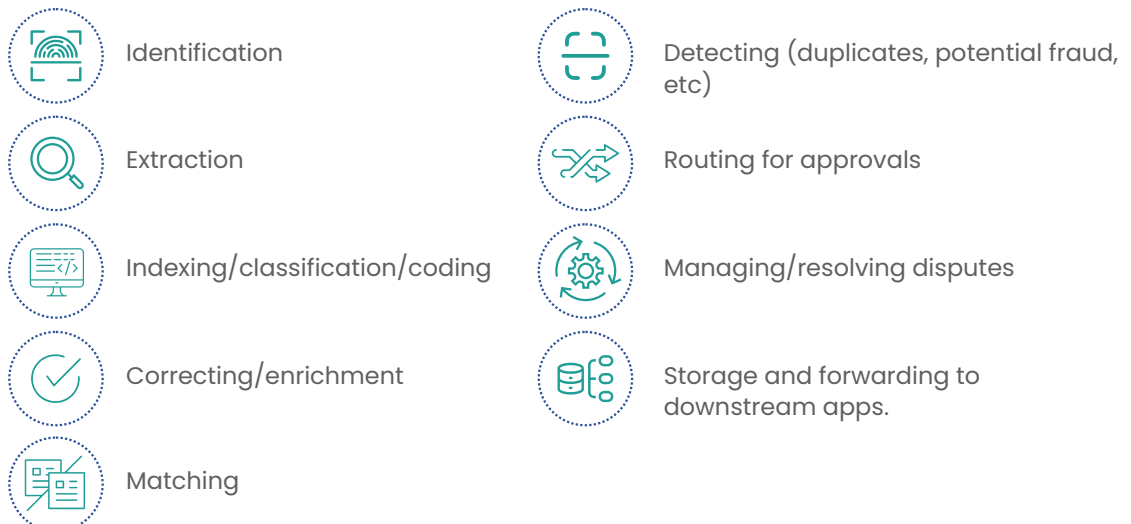# Importance of Taking a Process-Centric Approach to AP Automation

AP efficiency and effectiveness affects many stakeholders, so it's important to take an end-to-end, process-centric approach when deciding which pieces to digitize and automate (also, why, when, and how).

Procurement

Stakeholders/Budget Owners

AP

Suppliers

Accounting

Finance/Treasury

INVOICE SUBMISSION/RECEIPT

INVOICE PROCESSING & PAYMENT

ANALYTICS

CONTROLS

FRAUD PREVENTION

COMPLIANCE

FINANCIAL REPORTING

At the front end, there appear to be plenty of remaining opportunities for digitizing and automating how invoice documents get **submitted** and **received** into an organization. **Half (50%) of companies participating in IOFM's 2022 AP performance benchmarking study** say they have essentially automated invoice receiving, which typically means either:

- PDF, JPG, PNG (image files) or other types of digital records (XML, CSV, etc) arriving via email, FTP upload, Dropbox, Sharefile, Sharepoint, or other type of cloud/shared networking options, OR

- eInvoice records, typically "flipped" from POs or created within third-party Supplier Network applications.

Next come the data **digitization** and **processing** pieces, which are arguably the most complex to automate and where most practical AI applications are currently focused as they cover data:

Identification

Detecting (duplicates, potential fraud, etc)

Extraction

Routing for approvals

Indexing/classification/coding

Managing/resolving disputes

Correcting/enrichment

Storage and forwarding to downstream apps.

Matching

> *IOFM's 2022 benchmarking study finds 53% of companies claiming to have automated data capture (digitization), but there seems to be a broad range of what that actually means, extending all the way from simple OCR, to so-called "smart" OCR (with some front-end machine learning applied), to AI-Powered Intelligent Document Processing as discussed in the prior section.*

Adding real, automated intelligence to the front end — that is, to the **digitization** piece — makes it eminently easier and more possible to automate further downstream **processing** pieces such as:

- Complex (n-way) document matching

- Routing high-value or non-PO invoices through mandated approval workflows (as dictated by financial-control policies)

- Detecting invoice fraud, managing errors and disputes.

Beyond simply matching invoices to corresponding POs (based on PO number or other header-only information), companies are already using AI-powered intelligent n-way matching and authentication/validation capabilities to determine, for instance, if:

- Quantity billed is less than or equal to quantity ordered

- Invoice price is less than or equal to price specified in the PO

- Quantity billed is less than or equal to quantity received

- Supplier banking details match details in vendor master record.

Where non-PO invoices are concerned, companies are also deploying AI technologies to automatically:

- Assign the correct item/cost-center accounting codes (to a budget line-item level)

- Route invoices through required approval workflows.

Conclusion

Artificial Intelligence is poised to affect virtually every aspect of our personal and business lives. As an executive with responsibility for the Finance function and/or Accounts Payable processes, you can still decide to be a leading-edge, early adopter of AI-led AP automation.

Current and expected economic circumstances — slowing growth, tight labor markets with rising pressure on wages — alongside the fact that many C-suites are razor focused on digitization and automation — make now an ideal time to start exploring the state of the art in AI-led AP automation.

Practical AI for Accounts Payable automates the tedious, time-consuming, and labor-intensive tasks that require manual processing and frequent human intervention. It solves long-standing problems with systems integration and interoperability. And it offers the potential to bring so-called "Dark Data" — unstructured or semi-structured business data that is fragmented and trapped within countless docs and other sources — into the light where you can start using it to drive business performance improvement and to inform competitive business decision making.

AI eclipses human capabilities for certain tasks, such as detecting subtle patterns in massive data sets (invoice fraud, for example), instantly and accurately adding missing information, correcting bad information, and making data more meaningful by connecting it consistently to other related bits of information. Having evolved far beyond its predecessors, AI can save an organization as much as 50% of its current AP processing costs.

Traditional approaches (manual processing and OCR) fail to scale with increased invoice volume and document layout variations, and total cost of ownership (TCO) increases rapidly. Few contemporary business enterprises have an option of increasing AP FTEs to handle greater invoice volumes and variety. And template-based solutions do not fit-the-bill for variations in document layouts. Straight-through processing rates remain stubbornly low and there is greater need for manual intervention.

Leaders of AP automation initiatives must understand that for AP transformation to succeed, they need to cultivate synergies among people, process, and technology aspects. Use of AI and machine learning is for augmenting humans and enabling organizations to do more with less.

Now is the time to put incremental improvements on hold and modernize your accounts payable process from end-to-end with AI-led AP automation. Laggards that fail to seize this opportunity to drive strategic change in the AP function will miss out on good opportunities for cost efficiency, gaining competitive advantage, and scaling for growth. It is less a matter of if one should pursue AI-led AP automation, but rather how soon such a transition can be achieved to drive AP efficiency and digital transformation of the enterprise finance function.

Zycus AP Automation Solution

The **Zycus AP Automation Solution** targets holistic AP transformation and leverages the AI/machine learning capabilities of the **Zycus Merlin AI platform**. Key features and capabilities of the Zycus AI-led AP Automation Solution include

Time and cost savings: A template-free approach that delivers improved rates of straight-through processing with high accuracy and relatively low total costs of ownership (TCO)

Better supplier communications: Automated email review and reply via AP Smart Desk that improves supplier satisfaction and strengthens buyer-supplier relationships with faster response times and no missed emails
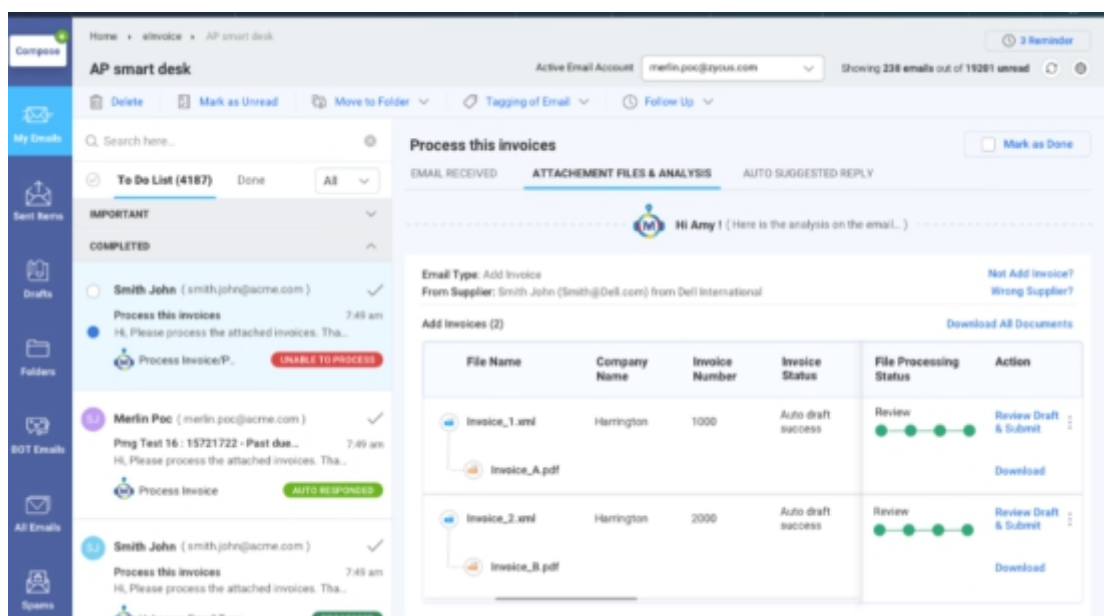
Anomaly and fraud detection: Identification of potential fraud cases (duplicate invoice, phantom supplier, etc) plus safeguards against phishing and spoofing

Global compliance: Consistent and up-to-date support for compliance around invoice content, e-invoice, and tax regulations.

Figure 5 - Zycus AP Smart Desk

SOURCE: ZYCUS

Zycus is the pioneer in Cognitive Procurement software and has been a trusted partner of choice for large global enterprises for two decades. Zycus has been consistently recognized by Gartner, Forrester, and other analysts for its Source to Pay integrated suite.

Zycus powers its S2P software with the revolutionary Merlin AI Suite. Merlin AI takes over the tactical tasks and empowers procurement and AP officers to focus on strategic projects; offers data-driven actionable insights for quicker and smarter decisions, and its conversational AI offers a B2C type user-experience to the end-users.

Zycus helps enterprises drive real savings, reduce risks, and boost compliance, and its seamless, intuitive, and easy-to-use user interface ensures high adoption and value across the organization.

Start your #CognitiveProcurement journey with us, as you are #MeantforMore.