LEVVEL RESEARCH

2018 Payables Insight Report

How Modern Companies are Automating Payables, Improving Working Capital, and Leveraging Electronic Payments

Q1 2018 | Featuring Insights On...

» Payables Management Trends Among North American Organizations

» Features and Functionality of Payables Automation Software

» Benchmarks for Assessing a Payables Current State

» A Leading Payables Automation Software Provider

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Introduction

Automating the invoice-to-payment process including accounts payable (AP) and payments processing—collectively known as payables management—is one of the most important items on the agenda for organizations when it comes to improving the back office. However, automating can seem daunting for some companies. Levvel Research consistently hears two questions when consulting with organizations of all types, sizes, and industries: "How do we fix processes given our current state?" and "How do we know where to start?"

Given the many options for improving back-office processes, both in terms of more strategic management and software-based approaches (i.e., automation solutions), it can seem overwhelming to begin an automation initiative. However, the potential barriers to adoption should not keep any organization from beginning the journey of Accounts Payable (AP) and payments process transformation. Automating payables processes is worthwhile because the end results are increased savings, increased efficiency, an improved bottom line, and a greater competitive advantage. No organization should miss out on its chance to achieve those benefits.

This report offers a holistic overview of payments management by discussing current management trends and providing a review of advanced payables automation software. The goal of this report is to provide organizations with a guide to understanding the current state of payables management among other North American organizations, and a set of benchmarks against which they can measure their own current state. With these tools, Levvel Research seeks to empower organizations to transform their back office and improve the efficiency and positioning of their business.
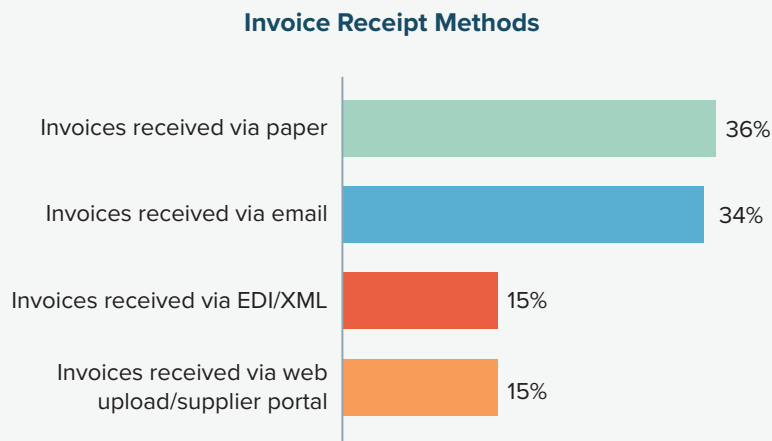
Research Overview: The Current State of North American Payables

In order to identify payables management trends among North American organizations, Levvel Research surveyed over 400 back-office employees across several industries and market segments. The following data is taken from this AP and payments management survey, highlighting trends in payables management from invoice receipt to payment.

Invoice Receipt

The first component of the payments lifecycle is invoice receipt. The way in which this component is managed can have a significant impact on processes down the line, such as invoice approvals or in making on-time payments. Levvel Research survey results show that invoices are primarily received in unstructured formats; paper is the most commonly received format, followed by email, see Figure 1. Structured invoice formats, such as electronic invoices (EDI) and those submitted through a web portal, are received at much lower volumes.

FIGURE 1

Invoice Receipt Methods

Method	Percentage
Invoices received via paper	36%
Invoices received via email	34%
Invoices received via EDI/XML	15%
Invoices received via web upload/supplier portal	15%

**Paper and Email Invoices Are the Most Commonly Received Invoice Types**
"Please allocate 100 percentage points on how your organization receives invoices."

There are some variances by company size, see Figure 2. For example, the SME[1] and lower middle market (LMM) segments have higher rates of paper invoices than those in the upper middle market (UMM) and enterprise segments.

Compared to smaller organizations, UMM and enterprise companies are more likely to have adopted some form of invoice receipt automation, and receive more of their invoices in structured formats—EDI/electronic invoices and invoices uploaded through a web portal. This can be attributed to their greater resources that can be allocated towards automation initiatives, as well as a higher invoice volume. The more invoices an organization receives, the higher the incentive to receive those invoices in an electronic and more controlled format, as the company has more financial data to manage and more complex AP processes.

FIGURE 2
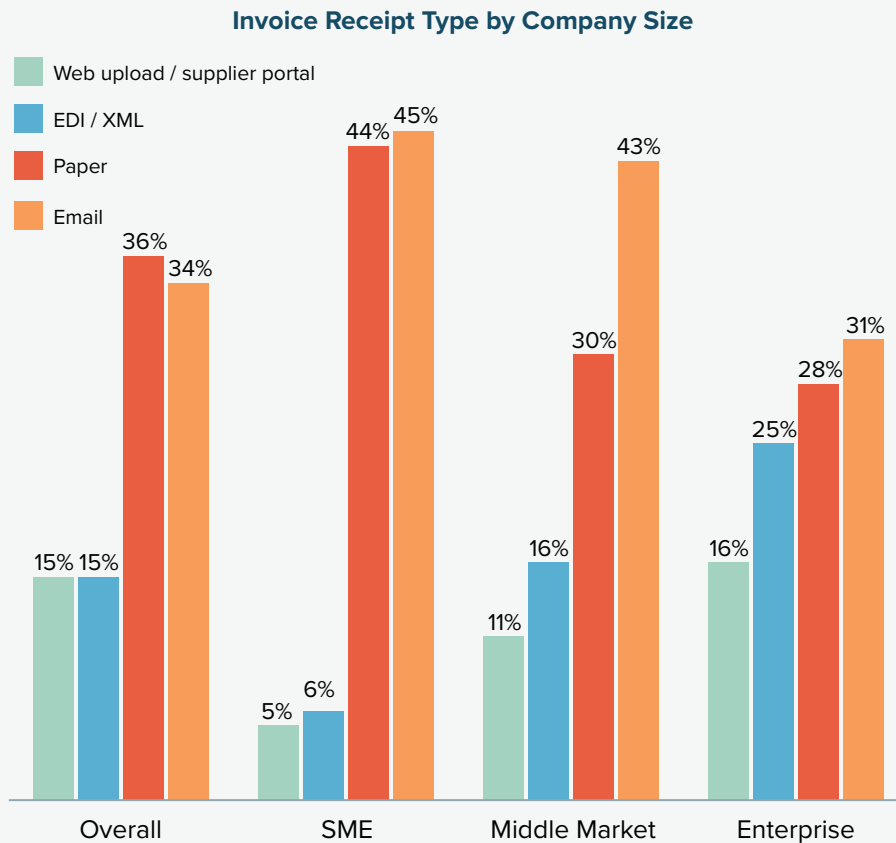
Invoice Receipt Type by Company Size

- Web upload / supplier portal
- EDI / XML
- Paper
- Email

Enterprise Organizations Are More Likely to Receive Invoices in EDI or Web-Based Format

"Please allocate 100 percentage points on how your organization receives invoices." & "What is your organization's annual revenue in the most recent 12-month reporting period?"

[1]Levvel Research defines organizations with revenue greater than $2 billion as enterprises, organizations with revenue between $501 million and $2 billion as upper middle market (UMM), organizations with revenue between $101 million and $500 million as lower middle market (LMM), and organizations with revenue between $30 million and $100 million as SMEs

Variances are also apparent across industries, see Figure 3. For example, the healthcare industry is relatively more progressive when it comes to technology adoption, as those organizations receive fewer paper invoices and have a greater dependence on invoices in electronic formats. This may be partly attributed to the healthcare industry's strict compliance regulations and high indirect spend/invoice volume, which together create a greater need for more controlled invoice management processing. Manufacturing, on the other hand, is less progressive in terms of invoice automation. This may be partly attributed to the greater focus on direct goods purchasing and contract-based spending. Levvel Research's research has shown that this industry has traditionally been slower to adopt AP-focused tools than other technology tools, such as sourcing systems.

FIGURE 3

Invoice Receipt by Industry
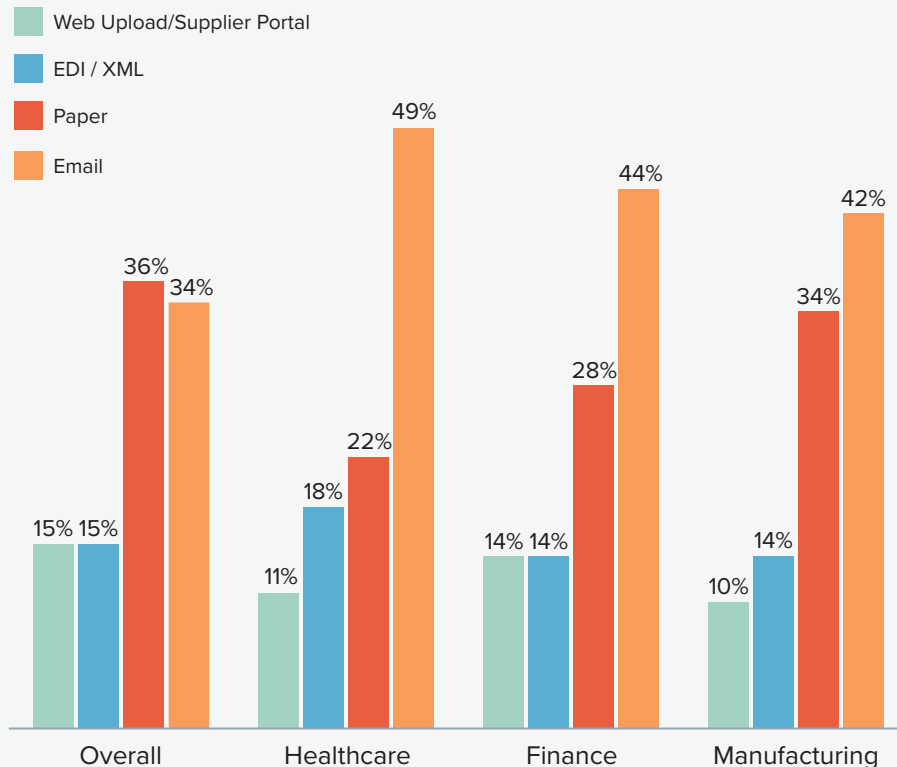
Healthcare Organizations Are More Likely to Receive Invoices in EDI or Web-Based Format
"Please allocate 100 percentage points on how your organization receives invoices." & "Please select the standard industry description that benefits your organization."

Unstructured invoice formats are much less efficient than structured formats, as unstructured formats typically require manual involvement, such as manual data entry into the ERP. Technology-enabled, structured formats can be used to automate much of the invoice receipt process, providing touchless invoice processing and approval. Therefore, a company's degree of efficiency and innovation is often reflected in its ratio of manual-based invoices to electronic invoices.
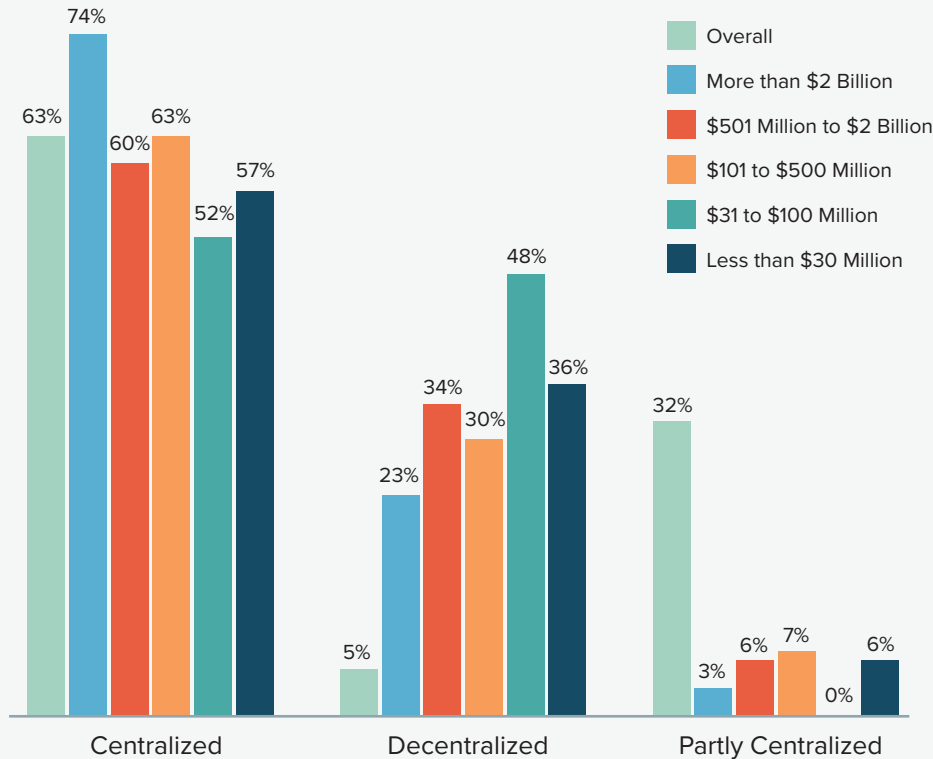
It should be noted that paper and email invoices are not completely unmanageable or incongruous with efficient AP. With the appropriate tools and/or strategies, such as data capture technology or premium mailroom services, an organization can process unstructured invoices efficiently without sacrificing control, while still enabling some cost savings. However, without some degree of automation, processing manual-based invoices is very difficult and costly, and can be made more difficult depending on an organization's business structure and current state.

One example of a current state variable is where invoices are processed, or how centralized the organization's process is. Although Levvel Research's research shows that the majority of organizations receive their invoices at a single location, there is a slight variation depending on company size, see Figure 4. Enterprise organizations are more likely to have centralized processes, as large companies typically have more locations that may be more geographically dispersed, as well as higher volumes of invoices. They also have a greater incentive to centralize invoice receipt, in terms of costs, data control, company security, and regulatory/audit compliance.

FIGURE 4

Company Size by Payables Process

Legend:
- Overall
- More than $2 Billion
- $501 Million to $2 Billion
- $101 to $500 Million
- $31 to $100 Million
- Less than $30 Million

Centralized: 63%, 74%, 60%, 63%, 52%, 57%
Decentralized: 5%, 23%, 34%, 30%, 48%, 36%
Partly Centralized: 32%, 3%, 6%, 7%, 0%, 6%

Most Organizations Have Centralized Invoice Receipt Processes
"Which statement best describes your invoice receipt and payment process?" & "What is your organization's annual revenue in the most recent 12-month reporting period?"
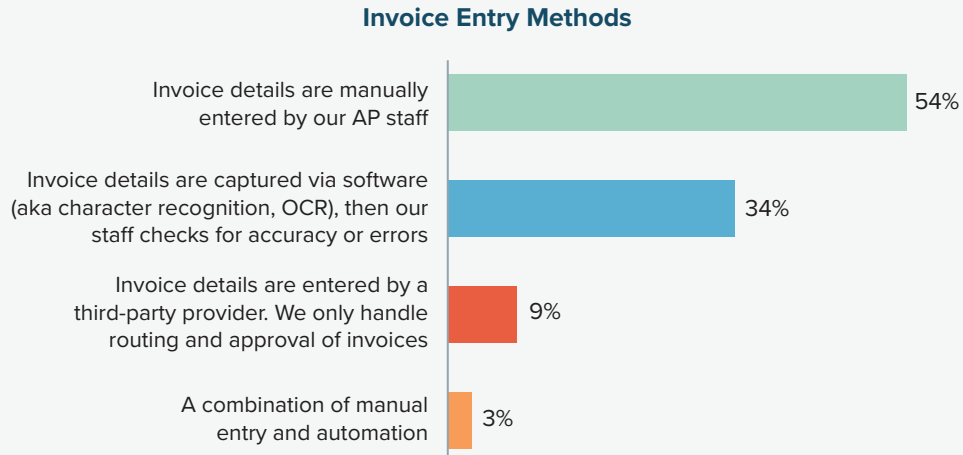
Middle market organizations are slightly more likely to have decentralized processes than enterprise companies. A contributing factor to this may be the possibility of growth within the middle-market—it is not uncommon that companies in the LMM and UMM experience some degree of expansion. Scaling companies are more likely to have partly centralized or decentralized processes as they adjust their back-office processes to meet changing demand.

Another example of how an organization's current-state methods affect AP efficiency is how unstructured invoices are handled upon receipt. Survey results show that the majority of organizations manually enter these invoices into the accounting system, see Figure 5.

FIGURE 5

Invoice Entry Methods

Invoice Entry Method	
Invoice details are manually entered by our AP staff	54%
Invoice details are captured via software (aka character recognition, OCR), then our staff checks for accuracy or errors	34%
Invoice details are entered by a third-party provider. We only handle routing and approval of invoices	9%
A combination of manual entry and automation	3%

Most Organizations Manually Enter Invoice Data in to Their Accounting Systems
"How is invoice information entered into your ERP, accounting software, or accounts payable software?"

Levvel Research has found that while centralized invoice receipt tends to be a sign of more efficient processes, an important factor influencing AP efficiency is the level of automation used to input invoices into the current accounting systems. For example, decentralized processes paired with high volumes of EDI invoices can be more efficient than centralized processes where more than 90 percent of invoices are received in paper format, as the former method eliminates the majority of manual intervention. In a similar example, a company with decentralized processes that is leveraging data capture tools within each AP department will have greater success in controlling AP efficiency than a company with one centralized invoice receipt process that is manually entering invoice data into the accounting system.

Invoice Management

After the invoice is received and submitted into the appropriate system, it must go through verification, validation, and approval workflows before the supplier is paid. Ideally, at this stage invoices are managed with an invoice workflow automation (IWA) solution. Accordingly, survey results show that companies most commonly route invoices for approval via a workflow tool, see Figure 6. Among respondents that are not using an invoice workflow tool, most companies with manual processes send invoices for approval via email.

FIGURE 6

Invoicee Routing and Approval Methods
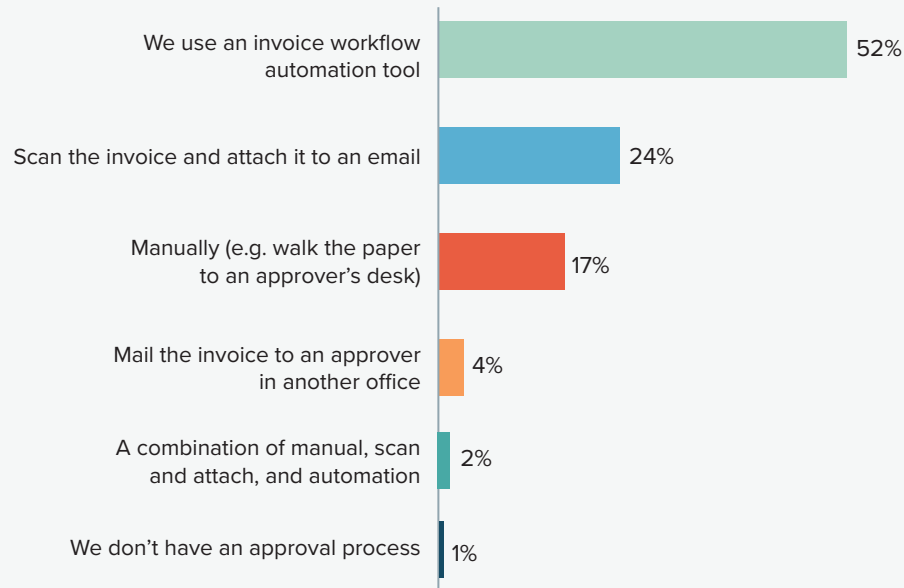
Among Organizations Without IWA Software Typically Route Invoices for Approval Via Email
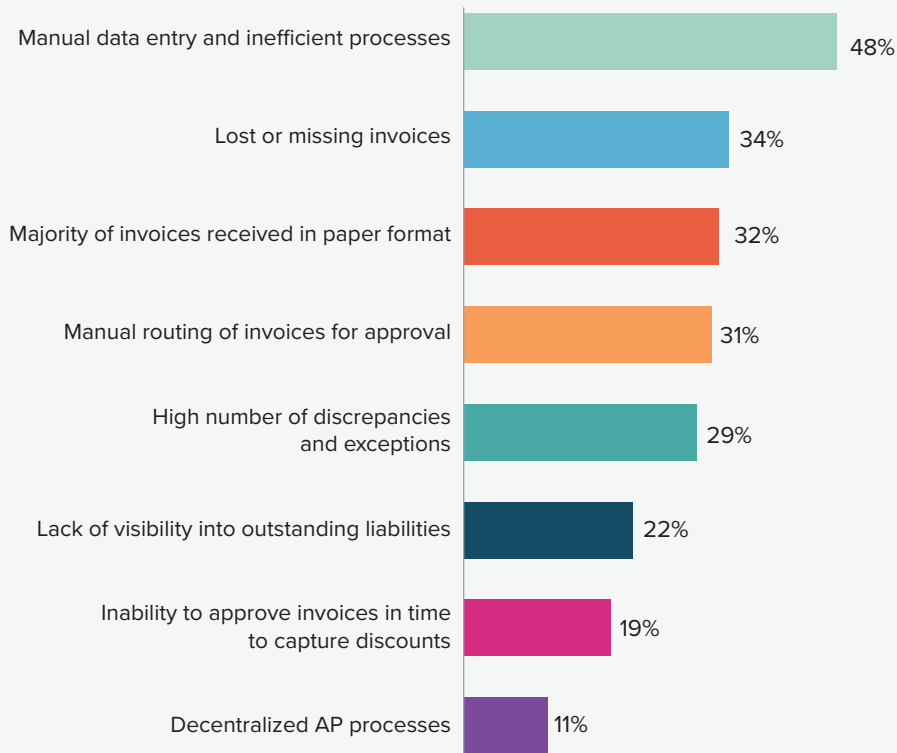*"How do you typically route invoices for approval in your organization?"*

Certain parameters further increase the value of an invoice workflow tool, such as invoice volume. The greater the number of invoices a company receives each month, the greater the importance of using an invoice workflow tool. However, this does not always mean high-invoice-volume companies will automate. For instance, despite being one of the industries with the highest volume of invoices, only 11 percent of companies in the manufacturing sector use modern, cloud-based IWA software. Another variable influencing the value of an IWA solution is the complexity of an organization's approval hierarchy. Invoice workflows can entail a complex and varied set of actions, including multiple levels of approvals, different rules relating to different types of invoices, and a large number of "touches" (points at which the invoice is reviewed or changes hands). This can be more or less complicated by size and industry. In a highly regulated industry like healthcare, it is desirable to minimize the number of touches, and therefore the value of an IWA tool is significant. However, once again, organizational need for automation does not necessarily mean adoption; only 11 percent of healthcare organizations are using an IWA solution.

When organizations do not have invoice management automation in place, they are susceptible to a variety of processing pains. Research shows that today's AP departments' most common issues in invoice management are manual data entry and inefficient processes, lost or missing invoices, and high volumes of paper invoices, see Figure 7.

FIGURE 7

Top Workflow Process Challenges

Manual data entry and inefficient processes	48%
Lost or missing invoices	34%
Majority of invoices received in paper format	32%
Manual routing of invoices for approval	31%
High number of discrepancies and exceptions	29%
Lack of visibility into outstanding liabilities	22%
Inability to approve invoices in time to capture discounts	19%
Decentralized AP processes	11%

Most Organizations Deal with Manual Data and Inefficient Processes in a Manual Invoice Workflow
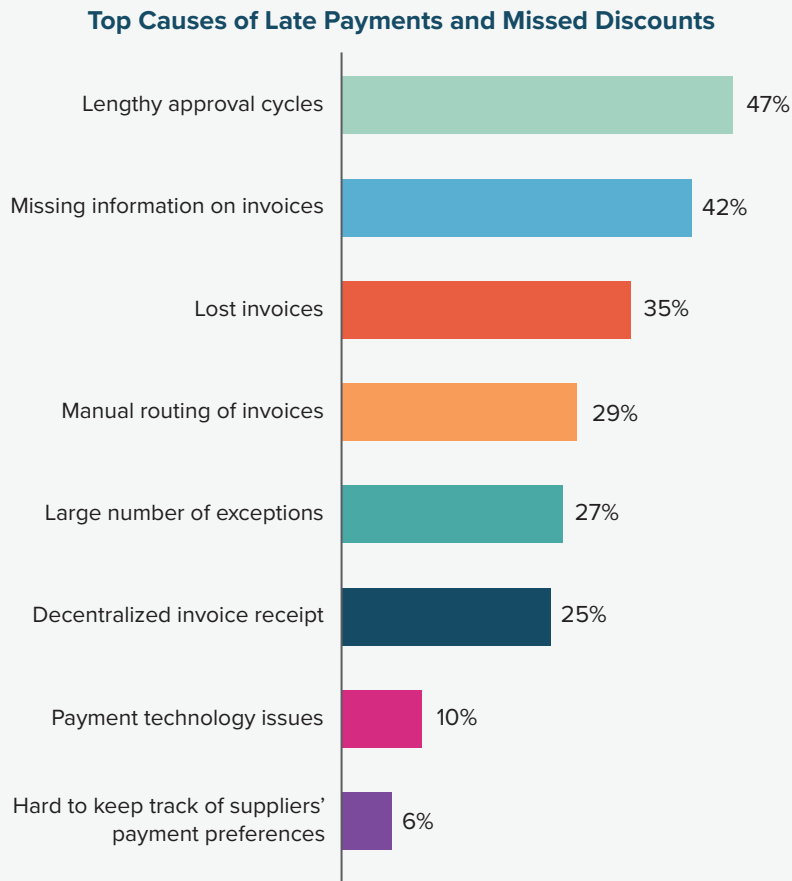*"What are the top three biggest pain points you experience in your workflow process? (Select top 3)"*

These issues can be very costly for organizations in terms of processing costs, inefficient use of labor, and the potential risks that come with poorly managed financial data.

Figure 8 shows the top reasons organizations miss early payment discounts. The most common reason is lengthy invoice approval lifecycles. This means that when invoices are not managed efficiently and processed in a timely manner, organizations could be missing out on significant amounts in potential early payment discounts. Manual invoice management also leads to issues that can harm supplier relationships and compromise cash flow.

FIGURE 8

Top Causes of Late Payments and Missed Discounts

Cause	Percent
Lengthy approval cycles	47%
Missing information on invoices	42%
Lost invoices	35%
Manual routing of invoices	29%
Large number of exceptions	27%
Decentralized invoice receipt	25%
Payment technology issues	10%
Hard to keep track of suppliers' payment preferences	6%

Organizations Miss Discounts Because of Lengthy Invoice Approval Cycles and Missing Information on Invoices
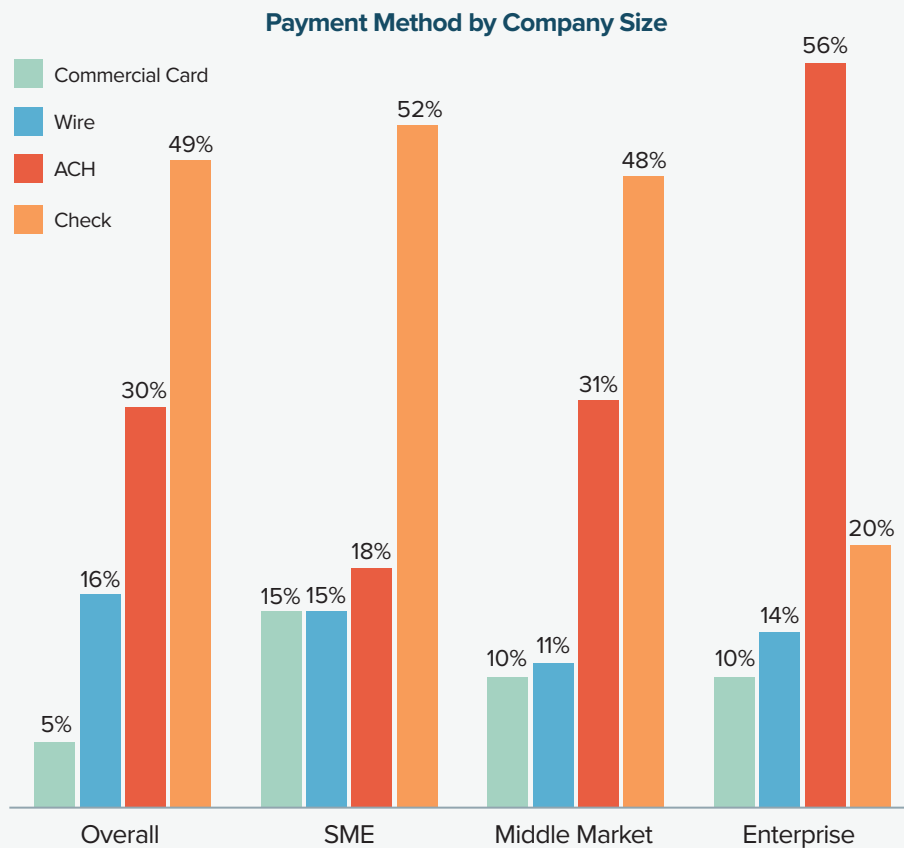*"What are the top three problems that lead to late payments and missed discounts at your organization? (Select up to 3)"*

Payments

The final step in the payables process is invoice payment. The most efficient means to make payments—the ones that belong in a fully automated payables process—are commercial cards, followed by ACH payment (via an electronic payment platform). However, research shows that the most common payment method used by today's organizations is in fact the least efficient and most costly method—manual payments via check, see Figure 9.

FIGURE 9

Payment Method by Company Size

Legend: Commercial Card, Wire, ACH, Check

Overall: Commercial Card 5%, Wire 16%, ACH 30%, Check 49%
SME: Commercial Card 15%, Wire 15%, ACH 18%, Check 52%
Middle Market: Commercial Card 10%, Wire 11%, ACH 31%, Check 48%
Enterprise: Commercial Card 10%, Wire 14%, ACH 56%, Check 20%

Enterprise Organizations Are the Greatest Users of Check Payments
"What percentage of your supplier-related payments (number of payments, not dollar value) is processed using the following methods?" & "What is your organization's annual revenue in the most recent 12-month reporting period?"

Commercial cards are the least used form of payment. These findings do not vary dramatically by revenue except for the enterprise segment, which processes a substantial percentage of ACH payments compared to other revenue segments, and processes much fewer checks. The middle market is also slightly more likely to make payments in ACH than SMEs. Levvel Research again attributes this to the fact that larger companies tend to have more invoices and supplier payments, leading to greater incentives to rid themselves of the costs and risks that come with manual processes. Surprisingly, the SME segment is the most likely to use commercial cards. Levvel Research assumes this is because these payment types are relatively easy and cost effective to adopt.

Across verticals, manufacturing lines up with industry averages, making almost half of their payments via check, see Figure 10. Healthcare is slightly more progressive, with 18 percent of payments made via commercial card. Finance and banking leads other industries in rates of commercial card adoption.

Payables Adoption

FIGURE 10

Payment Method by Industry
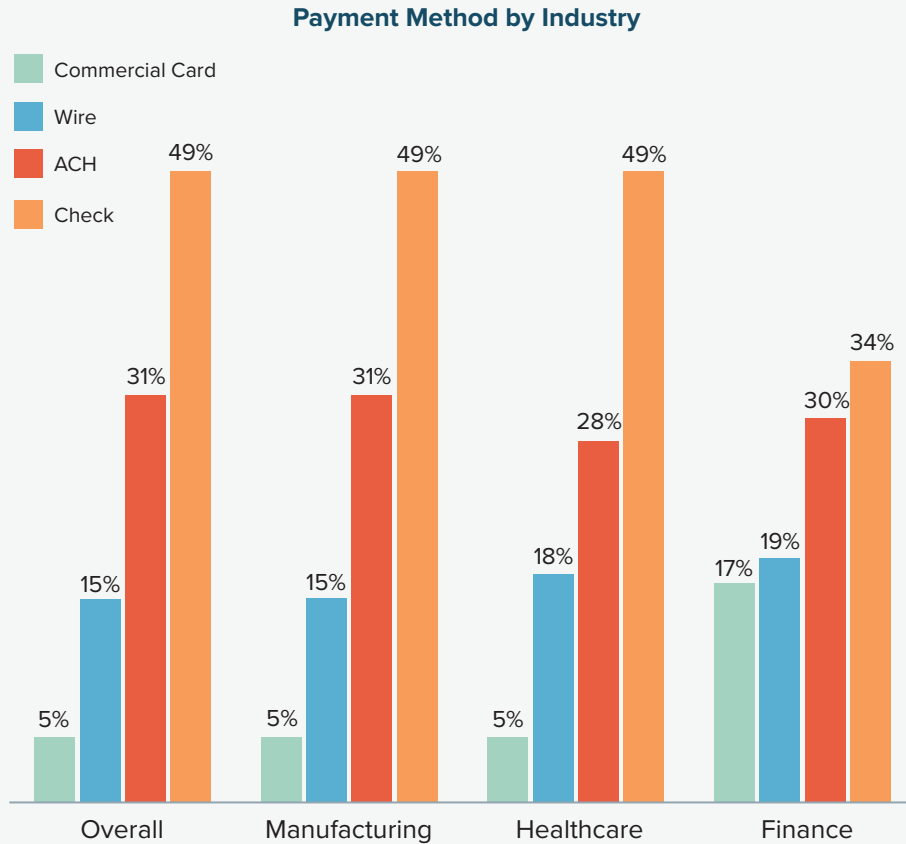
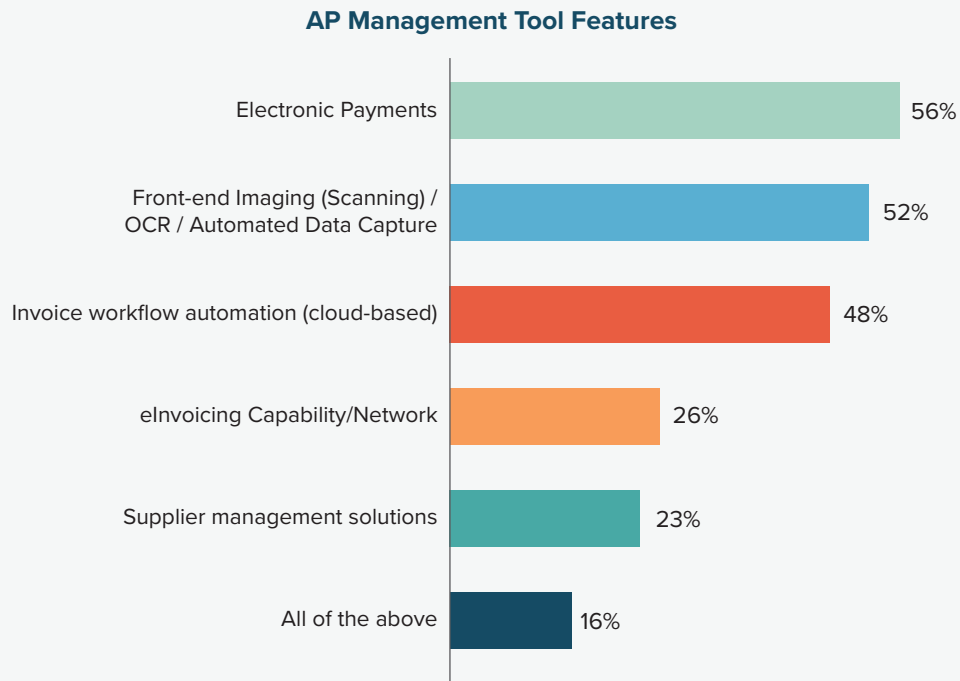**Finance Organizations Are the Greatest Users of Commercial Cards**
"What percentage of your supplier-related payments (number of payments, not dollar value)
is processed using the following methods?" & "Please select the standard industry description that benefits your
organization."

Levvel Research breaks down payables automation into five main functions:
electronic payments, data capture functionality, invoice workflow automation,
eInvoicing, and supplier management tools. If an organization has every one of
these tools, it is considered to have a fully automated payables process.

Figure 11 shows the overall adoption for each tool. Electronic payments are the most commonly adopted tool, followed by front-end imaging/data capture solutions. Levvel Research attributes this to the relative ease of implementing these tools in an AP process.

FIGURE 11

AP Management Tool Features

Tool	Percentage
Electronic Payments	56%
Front-end Imaging (Scanning) / OCR / Automated Data Capture	52%
Invoice workflow automation (cloud-based)	48%
eInvoicing Capability/Network	26%
Supplier management solutions	23%
All of the above	16%

Electronic Payments Are the Most Widely Adopted Tool
*"Which of the following features does your AP management tools have? (Select all that apply)"*

Levvel Research asked survey participants about the improvement they witnessed after adopting an ePayables solution, see Figure 12. The majority of organizations report seeing noticeable improvement since adoption. Some tools are more effective for process improvement than others. For example, eInvoicing capability and supplier management

FIGURE 12

Perceived Improvement From AP Automation

- Noticeable improvement
- Processes have remained the same
- Processes have become worse
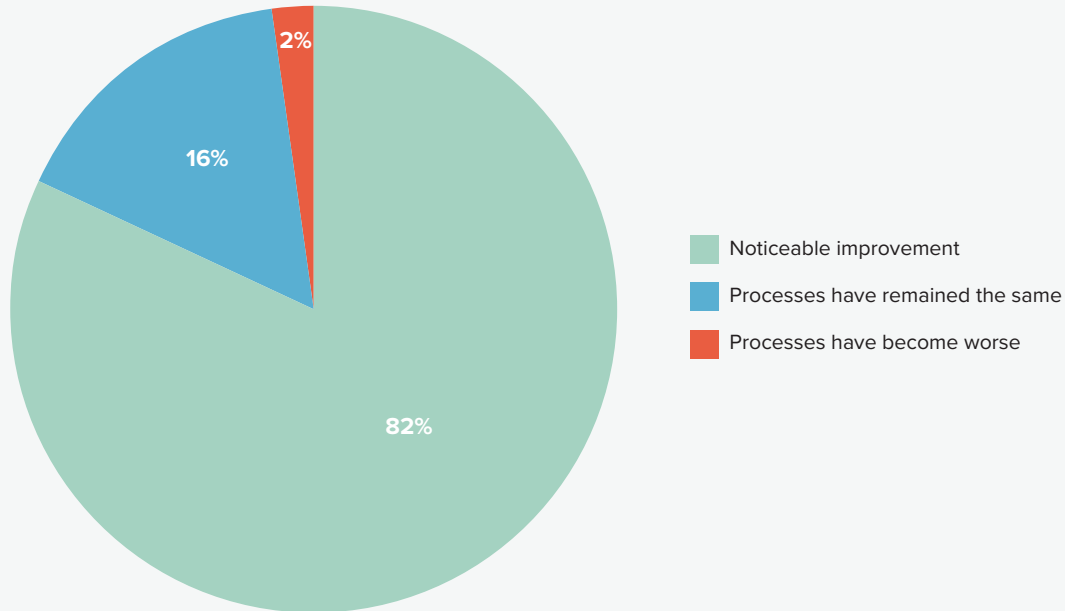
Most Organizations Report Noticeable Improvement After Implementing an AP Management Solution
*"Since you have implemented an AP management solution, how would you
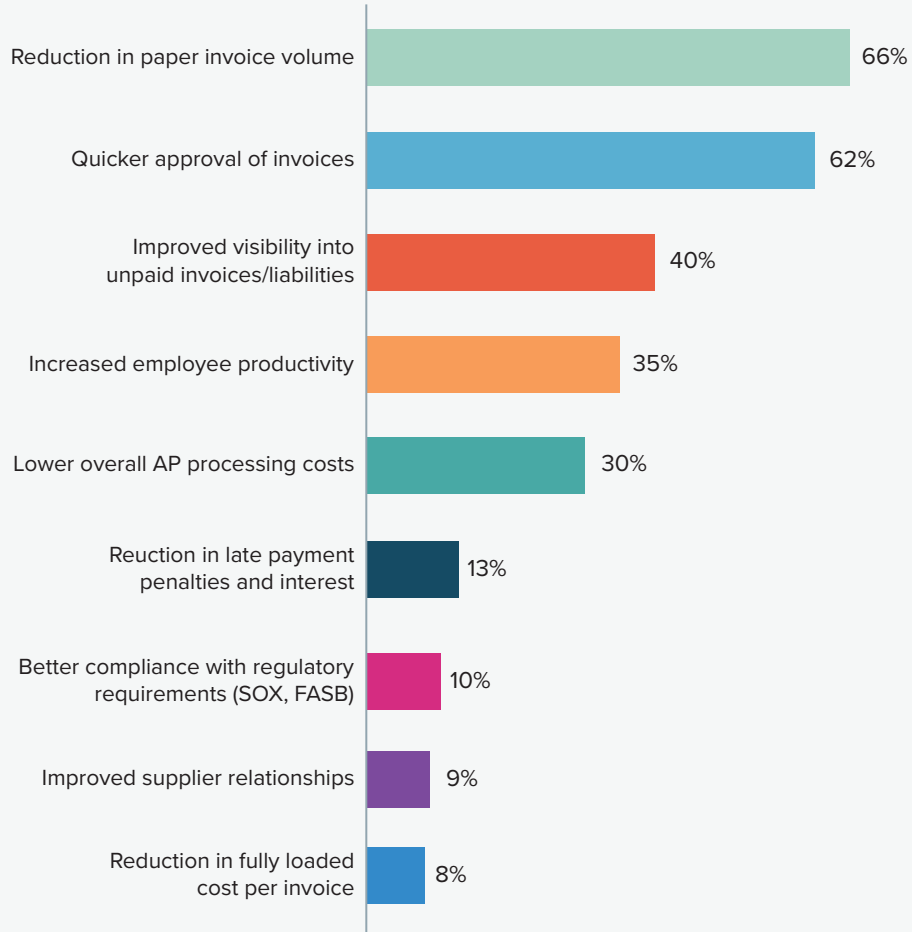rate the change in efficiency in AP processing?"*

were two of the solutions that saw the most marked improvements in AP processing efficiency. The group that saw the highest rate of efficiency improvement in AP was the segment that leveraged all of the listed AP management tools.

When it comes to the specific improvements that were observed, organizations indicated a variety of areas in which they saw benefits of payables automation. Figure 13 shows that the two greatest improvements gained by adopters of AP automation were the reduction in paper invoice volume and quicker approval of invoices. Both benefits greatly reduce processing costs and enable a company to capture more early payment discounts.

FIGURE 13

Benefits Achieved Through AP Automation Implementation

Benefit	Percentage
Reduction in paper invoice volume	66%
Quicker approval of invoices	62%
Improved visibility into unpaid invoices/liabilities	40%
Increased employee productivity	35%
Lower overall AP processing costs	30%
Reuction in late payment penalties and interest	13%
Better compliance with regulatory requirements (SOX, FASB)	10%
Improved supplier relationships	9%
Reduction in fully loaded cost per invoice	8%

Most Organizations List Reduction in Invoice Volume and Quicker Approval of Invoices as Their Top Benefits from AP Automation

"What are the greatest improvements you have seen since implementing an AP management solution? (Select up to 3)"

When asked about the improvements gained from commercial card programs, organizations' top benefits were increased convenience, increased rebate capture, and lower processing costs, see Figure 14. Depending on how much spend is captured using commercial cards, rebates can potentially bring companies millions of dollars in savings, in many cases covering the cost of other, adjacent payables solutions like an IWA tool.

FIGURE 14

Benefits Achieved Through Commercial Card Program
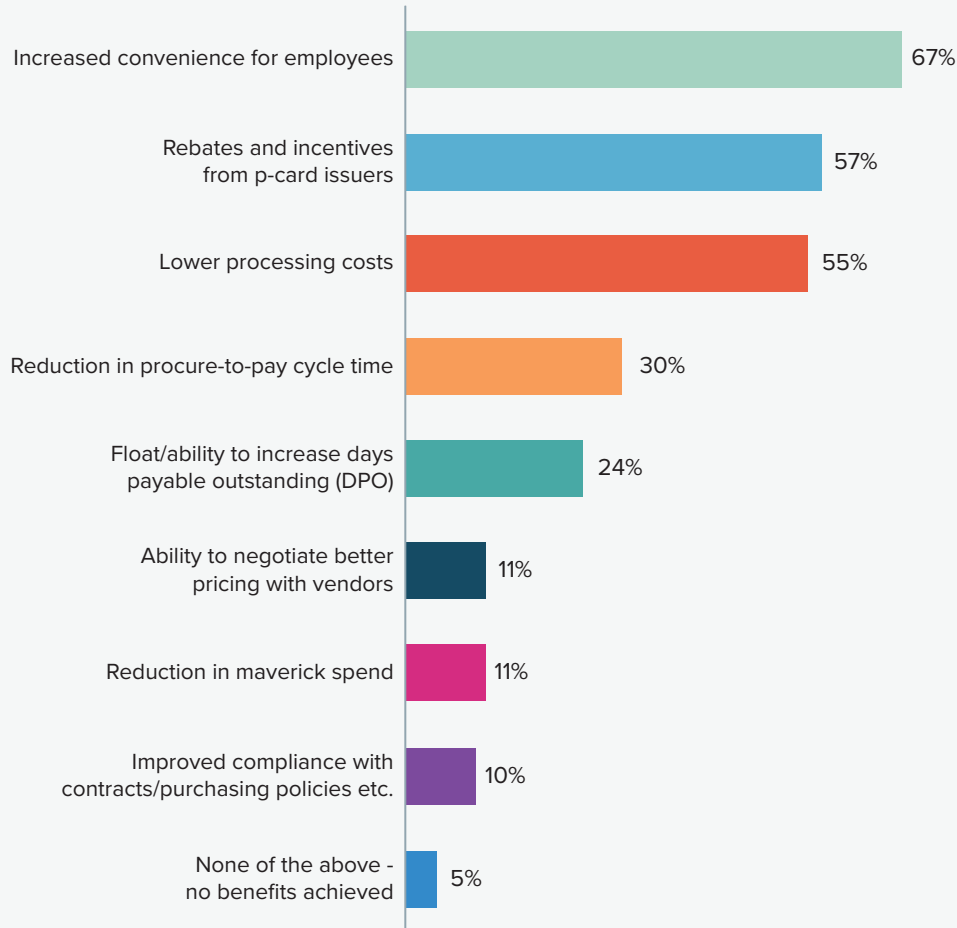
*Most Organizations List Increased Convenience, More Rebate Capture,
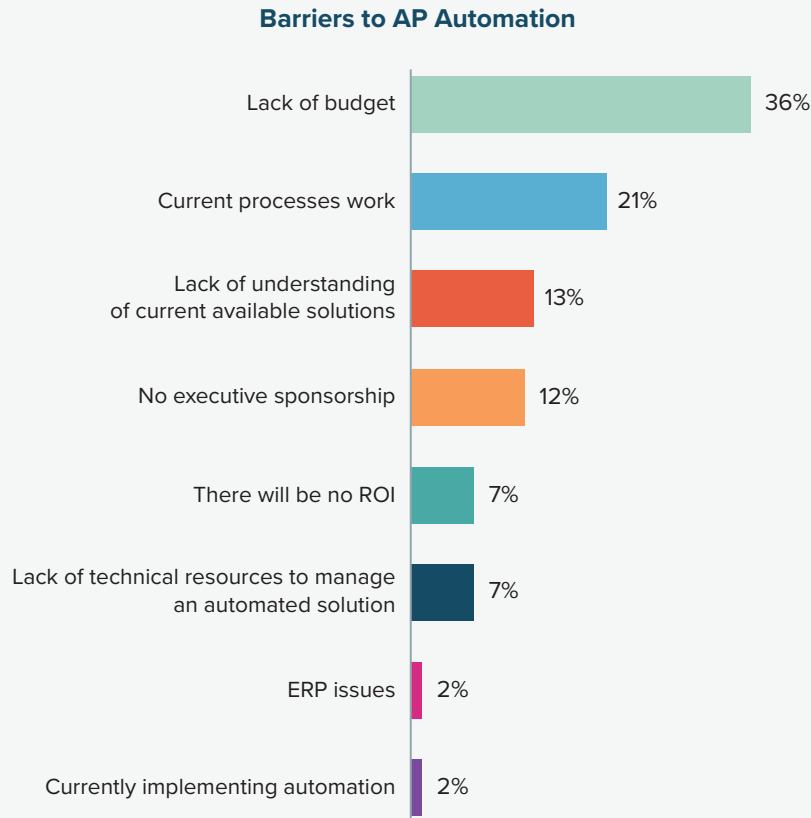and Lower Costs as Their Top Benefits from Commercial Cards*
"Which of the following benefits have you achieved from commercial card programs? (Check all that apply.)"

Despite the benefits of payables automation tools, many organizations still have yet to adopt a tool. The top barrier to adoption cited by most organizations is lack of budget, followed by the belief that current processes are working, see Figure 15. Concerning the "lack of budget" barrier, Levvel Research has found that many organizations are not fully aware of the affordable options that have been added to the software space in the last decade. An increasing number of solutions accommodate the limited resources of SME, LMM, and UMM companies. In many cases, citing a "lack of budget" is a sign that an organization is not well-educated

on the options available. In many cases, they are also not considering or aware of the ROI that automation will bring, which will more than cover the cost of the solution.

FIGURE 15

Barriers to AP Automation

Lack of budget	36%
Current processes work	21%
Lack of understanding of current available solutions	13%
No executive sponsorship	12%
There will be no ROI	7%
Lack of technical resources to manage an automated solution	7%
ERP issues	2%
Currently implementing automation	2%

Most Organizations List a Lack of Budget as Their Top Barrier to Adoption
"What do you perceive to be the greatest barrier to adopting a cloud-based AP automation solution in your organization?"

Barriers to adoption differ somewhat by role, see Figure 16. For example, the responses from those at the staff level reflect their first-hand knowledge of the current state, in that those respondents were among the least likely to cite "current processes work" as a barrier to adoption, but most likely to cite "no executive sponsorship." On the other hand, respondents far-removed from the tasks involved in a manual payables processes, such as the C-suite and above, were most likely to believe that current processes are working well enough to prevent the need for software implementation.

FIGURE 16

Barriers to Automation by Title

Legend:
- Middle Management (Manager, Junior Partner, Junior Associate)
- Owner, Founder, CEO, Managing Director, President
- Staff (Clerk, Analyst, Assistant)
- Upper Management (SVP, Associate, Assistant Director, C-Suite, Partner, Principal)
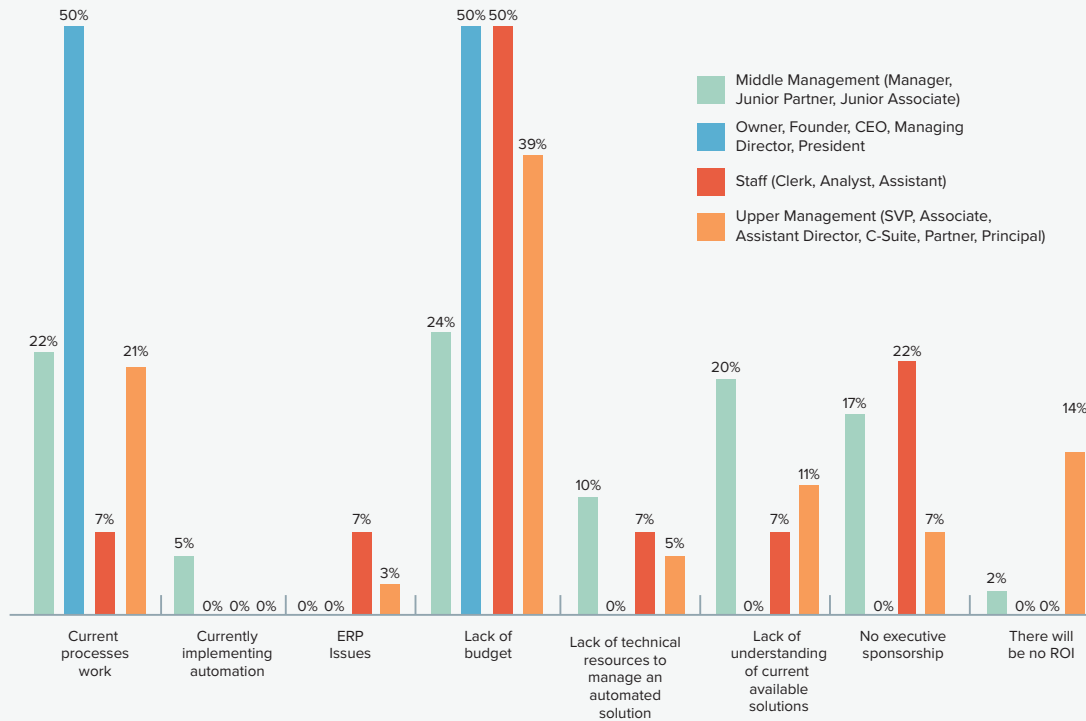
Adoption Barriers Vary by Role of the Respondent
"What do you perceive to be the greatest barrier to adopting a cloud-based AP automation solution in your organization?"
& "Which title best applies to your position in the company?"

These responses on the barriers to automation adoption are likely a result of the varying goals and perceptions around technology and process improvement that different roles have. Despite these differences, it is important for organizations to address hesitations at every level to gain buy-in from all parties. For example, an organization will need buy-in from upper management, particularly the C-suite, to make a final decision on technology investment, but they will also need consideration and feedback from middle management in order to choose a solution suitable to their unique business needs.

Furthermore, they will need the enthusiasm of those at staff-level positions, like AP clerks or analysts, as those employees' participation with and mastery of the automation software is essential for ensuring the return on investment (ROI) from that tool. Staff-level employees are also the most aware of the day-to-day

challenges of a manual AP process, and can be valuable in helping to identify where to start with payables automation adoption.

Understanding the different mindsets around automation adoption, as well as current North American trends of manual processes, can be very valuable in helping a company determine if their current state warrants software adoption. The following section offers more insight into the value, roles-based benefits, and use case of different electronic payables solutions.

ePayables Software Overview

Invoice Receipt

Before a payables automation can operate successfully, invoices must be entered into the organization's system in an efficient, timely, and accurate manner.

What is the Value?

Having a controlled process for submitting invoices in a variety of formats improves control over company data, which strengthens a company's ability to meet requirements around tax compliance and other financial regulations. It improves the accuracy of data as a whole, which enhances an AP department's ability to verify data on invoices and ensure that payments are issued to the correct supplier for the correct amount, helping reduce maverick, inefficient, and fraudulent spend. It also eliminates manual data entry and verification, which shortens the invoice-to-payment lifecycle and improves an organization's ability to capture early payment discounts on invoices.

Who Benefits?

At the staff level, automated invoice receipt improves employees' productivity by reducing the time spent on low-value tasks like manual data entry. At middle and upper management levels, it reduces the need to worry about tactical issues, as well as the need to solve last-minute disputes, and increases the time they can spend on more strategic initiatives. For employees at the C-suite level and above, the reduction of the cost involved with processing high volumes of paper invoices with manual methods leads to improvements to the bottom line. It also greatly increases these professionals' chance to manage finances strategically, and potentially turns a cost center into a profit center.

How Does it Work?

There are two primary ways to electronically input invoices into the appropriate accounting systems—through the use of a scanning and Optical Character Recognition (OCR) data capture process or via an eInvoicing network.

Optical Character Recognition (OCR) is the electronic conversion of scanned images or text to a machine-encoded document. OCR extracts the relevant data from scanned paper or PDF invoices and sends it through validation and routing.

OCR technology can be used in several invoice receipt methods, including mailroom services, email extraction, and online portals.

After invoice data is extracted, the OCR-converted documents are verified against a set of validation rules; the solution compares specific fields against the information held in the appropriate back-end system (e.g., purchase order numbers against the purchasing system). Validation technology is a second round of checks and balances for invoice consistency and compliance—after the initial capture of data, it re-affirms the integrity of business documents before they are assimilated into the main workflow system.

The use of advanced OCR technology ensures a high level of precision, consistency, and compliance. Advanced OCR technology provides capture capabilities that have excellent pass-through rates when scanning paper documents, and some technologies can also extract data from the subject and body of emails, rather than from the attachments only. Some technologies can also read and extract data in several different languages. In all, the more advanced the OCR software, the more streamlined the routing process becomes down the line.

Electronic invoicing eliminates all manual data entry by the buyer. There are three methods of electronic invoicing:

» Traditional direct integration with the supplier's back-end AR system, typically done via Electronic Data Interchange (EDI) of XML files.

» Online fillable forms (usually as part of a supplier portal), which ensure that a uniform invoice is submitted every time.

» A print-to-cloud solution that validates PDF elements instantly and notifies suppliers in real time if their invoice is missing necessary elements.

Advanced eInvoicing solutions are free for suppliers, and many feature advanced global capabilities for complex invoice requirements in Europe, Asia, and Latin America. The greatest advantage of eInvoicing is the ability to send invoices straight to the approver and then straight to payment (i.e., straight-through processing).

Invoice Management

An advanced invoice management solution is designed to adapt to existing business structures, diverse supplier bases, and complicated approval hierarchies. In order to meet these requirements, the software must address the entire invoice lifecycle and be highly advanced, customizable, and versatile.

What is the Value?

IWA solutions greatly improve approval times through intelligent invoice routing and workflows, and through approval reminders and escalations. AP managers can also easily customize business rules and approval routes to separate high-priority invoices, such as those from a special supplier, ensuring that they are pushed to the top of approval queues. From a holistic standpoint, reducing invoice-to-payment lifecycles allows a company to improve relationships with suppliers and strengthen supply chain processes. From a cost savings standpoint, reduced invoice cycle times increases an organization's chances of early payment discount capture.

Who Benefits?

At the staff level, AP team members no longer spend valuable time tracking down the correct approver for each invoice, as approval workflows are configured into the invoice management tool, and the solution helps to control those workflows. Invoices are automatically routed to the correct approver and the entire history of the workflow is recorded in the solution. At middle and upper management levels, automated invoice management reduces the time necessary to oversee approvals or to double check that invoices were properly approved, as these professionals can rely on the custom controls built into the invoice workflow tool. For employees at the C-suite level and above, the cost savings resulting from reduced invoice approval times and greater early payment discount capture can lead to great improvements to the bottom line.

How Does it Work?

Workflow solutions enable AP departments to define how different types of invoices are processed. Invoice matching and routing involves linking invoices to purchase orders and other receiving documents, then sending them through the appropriate approval chain based on terms identified within the invoice (such as PO number). PO- based invoices can be matched against PO and receipt documents automatically, while non-PO invoices are routed to the appropriate

approvers.

All invoices are routed based on predefined business rules, and user roles and access rights can be set to match the organization's existing approval hierarchy. Many solutions give client administrators control over individual user access rights. Those administrators can then delegate the types of approvals for each employee, their level of visibility, and their authorized dollar thresholds.

Advanced technologies provide field-level matching, meaning that they match specific characters in invoice line items with their counterparts in POs. Some solutions create notifications or workflows driven by fields with invalid or missing data, and some feature the ability to dictate workflows for non-PO invoices based on invoice contents. Users may also assign non-PO invoices to categories within the general ledger, and advanced solutions allow specific line items to be assigned to multiple cost centers or multiple POs.

The accuracy of rules-based matching engines, in combination with eInvoicing, allows many companies to automatically pay invoices that meet all validation rules shortly after receipt, letting AP staff focus only on exceptions. This pass-through feature can be used for low-value or recurring invoices (such as utility bills).

Invoices that fail validation and matching undergo a pre-established workflow and routing procedure, also called exception management. Invoice exceptions could be a discrepancy between an invoice and a PO or missing information such as the PO number, approver's name, or location code. The exception management process lets users re- route invoices and fix errors by viewing the original invoice to identify handwritten, printer, or OCR errors. Advanced exception management software allows for the creation of custom workflows depending on the type of exception present. These solutions also enable users to set thresholds for non-PO invoices to identify potential errors or fraud, such as an invoice for snowplow services in July. In addition, many systems put the responsibility of exception and discrepancy resolution back on suppliers, returning the document to them for correction before allowing it to enter the main workflow system.

Once invoices have been validated, matched, and routed into the appropriate queue, a variety of approval workflow capabilities ensure that those invoices are approved in a timely manner. Most invoice workflow solutions are highly

configurable; they are built to adapt to an organization's existing approval hierarchies and enable more complex routing (e.g., among different departments and cost centers). During and after initial setup of a solution, organizations can easily adjust workflows according to their own business rules, legal requirements, and the invoice type, amount, or other content. Advanced solutions facilitate this customization through visual work ow editors with detailed process flows and drag-and-drop functionality.

When invoices require review, approvers can typically be notified via email or mobile alerts. Most solutions come bundled with alerts and reminders for approvers, out-of-office delegation rules, and escalation procedures for overdue invoices. Prioritization capabilities allow organizations to move invoices with early payment discounts to the top of the processing queue, ensuring that they are approved in a timely manner. In addition, some solutions feature workload-balancing features that redistribute the invoices in an approver's queue to different employees if that approver's workload exceeds a certain number of invoices.

AP interfaces make approvals easier and more transparent. Dashboards allow users to navigate in-progress invoices, providing complete histories of the documents. Supervisors can track the status of individual invoices or approvers, reorganize and prioritize unapproved invoices, and access audit trails at any time.

Some solutions offer approval capability directly from within emailed notifications; in other situations, users can click on a hyperlink in the email and log in to a system to view, code, and approve invoices online. Many solutions also offer mobile approval capability through native and/or responsive web-based apps. Offering multiple methods for approval keeps invoices moving through the system when approvers are on the go.

Payments

Electronic payments (ePayments) solutions typically consist of different payment processing tools that allow organizations to make secure local and global payments.

What is the Value?

Holistic electronic payments (ePayments) software streamlines the most tedious tasks of payments management. These tools enable organizations to reduce their reliance on manual methods that require heavy staff involvement and oversight, shifting much of the payment processing burden to the platform and solution provider. These solutions also speed up cycle times, improve discount capture, and produce savings through processing improvements and card-based rebates.

Who Benefits?

At the staff level, payments teams no longer have to deal with the many time-consuming tasks related to paper check payment processing. They can hand off the reconciliation and payment data maintenance process to experienced ePayments solution providers. Middle and upper management level staff see a great reduction in maverick spend, fraudulent payments, and security concerns that result from less controlled payment methods like checks. C-suite professionals can strategically manage payments and optimize cash flow, and see bottom line improvements from reduced costs and higher commercial card-related rebate capture.

How Does it Work?

In a fully automated payables process, after an invoice has been approved, it is automatically sent to payment. Basic AP management solutions create a payment file that is sent to the ERP (which then initiates payment or sends a message to AP). Electronic payment functionality also facilitates the input of ACH information and integration with back-end AR systems.

ePayments tools can be offered as standalone solutions or as integrated features within an invoice management tool. In the latter case, solution providers offer an in-house or partner-provided electronic payments solution. ePayments software enables organizations to optimize their existing payment processes. For example, an ePayments solution that supports payments through ACH rails

offers rich remittance detail and other functionality that traditional ACH does not. This software streamlines many tedious aspects of payment management. Typical methods include traditional purchasing card support, ACH payments, and in some cases, check-writing services for customers who still require a check payment option. Many providers offer a web-pay portal for vendors to log in and view invoice and payment transaction status in real time. These portals can also support different payment types and automatic formatting of remittance information based on supplier preferences.

Some companies also offer wire payments support, as well as global payment management services that enable organizations to streamline the complex tasks related to international supplier payments. Sometimes these services include verifying suppliers' legal status and payment compliance by searching Do Not Pay lists.

Advanced ePayments solutions, typically offered by a specialized provider with extensive experience in B2B payments technology, support many different commercial cards. "Commercial cards" is the umbrella term for payment cards used in B2B payments (as opposed to consumer cards). Common commercial card types include:

» Traditional Purchasing Cards – Organizations provide purchasing cards (p-cards) to individual employees for the purchase of business goods and services. P-cards are ideal for purchases in which the traditional invoice approval prior to payment does not add value (e.g., low-dollar purchases). Some p-card programs are known as "One Card" programs when they also allow for T&E expenses, eliminating the need for an employee to carry two cards.

» Corporate Cards – Employees use these cards for business travel and expense (T&E) purchasing.

» Fleet/Vehicle Cards – Organizations implement this type of card to pay for fuel and vehicle maintenance. The cards allow for reporting and tracking by vehicle, providing controls specific to this expense category.

» Ghost Cards/Accounts – Traditional ghost cards function like p-cards, with reusable account numbers and spend limits that refresh each month. One common scenario is providing a ghost account number to a supplier, who retains the number and processes charges to it as employees make

purchases.

» Single-Use Cards – This is a common type of Virtual Account (VA)—also called Virtual Card Accounts, Virtual Account Numbers, or ePayables. After an organization approves a supplier's invoice(s), AP initiates the payment process. The supplier receives a one-time- use virtual account number to process the charge. The spend limit is equal to the approved invoice(s) and does not refresh.

» Other Virtual Card Programs – As with single-use cards, other Virtual Accounts programs center around an organization's approval of supplier invoices. One VA option is a straight-through payment where a supplier receives a direct payment through the card network or issuer, rather than having to process a charge transaction. Overall, organizations tend to target Virtual Accounts for higher dollar purchases and/or complex purchases warranting invoice review prior to payment. VA cards are one of the fastest- growing tools offered today, and are offered by leading ePayments providers.

» Declining Balance Cards – These cards have a set limit and expiration date that does not refresh. Organizations may use such cards for special projects with a set budget, such as meetings or events, for relocation expenses, for infrequent travelers who do not warrant a corporate travel card, and more.

Leading ePayments providers also offer a mix of payment management services and tools, attributes, and features, including:

» Virtual card support

» Mobile payments support/applications

» Audit trail functionality

» Payments approval functionality

» Commercial card support

» Global ePayments support

» Vendor portal

Working Capital Optimization

Some payables solutions give organizations access to working capital management tools such as dynamic discounting and supply chain financing. Working capital optimization involves strategically optimizing cash flow by reevaluating and restructuring payment times and terms to make them more favorable for a company.

What is the Value?

Working capital solutions are especially valuable for companies struggling with cash flow problems that inhibit their ability to expand, improve, or even properly operate their businesses. The goal is to improve the buyer's cash conversion cycle without hurting suppliers' own cash flow needs. A successful working capital tool will support both the buyer and supplier, and can improve the supply chain health of both parties.

Who Benefits?

One of the most powerful benefits of working capital tools is their ability to save companies money, which can amount to millions of dollars each year depending on the size of the company, the number of invoices, and annual spend. Professionals at the C-suite level are able to use that improved cash flow to improve strategic management over cash and the company's competitive positioning. Working capital optimization also improves executives' ability to expand their operations, as the tools allow them to access outside resources at an affordable cost point to support supply chain operations.

How Does it Work?

Working capital management tools increase companies' savings and bottom line, either through sliding scale discounts or third-party financing. Moreover, working capital management tools benefit the supplier through faster invoice payments, thus improving business relationships.

Dynamic Discounting Management (DDM) software leverages the speed and efficiency of AP automation to unlock cash flow for both buyers and suppliers. Instead of using static discount terms such as "2% 10, net 30," DDM solutions offer invoice discounts based on variable rates. Early payment discounts decrease as payment deadlines approach, enabling buyers and suppliers to set and select discounts according to their own business and financial requirements.

There are a few different dynamic discounting models and features. One is the sliding-scale discounting method, which offers automatic discounts on a predefined set of invoices, starting high but decreasing as the invoice due date approaches. Other dynamic discounting strategies offer a collaborative approach that takes into account suppliers' financial needs, giving them control of annual percentage rates (APRs) and terms. Some solutions allow buying organizations to choose between recurring one-off discounts, and many give buyers the ability to segment suppliers and discount schemes according to supplier size, geography, spend, and other characteristics.

The goal of supply chain financing is less about capturing discounts and more about unlocking cash flow—both the buyer's via extended DPO, and the supplier's by financially supporting their supply chain and production needs. SCF opens payments to competitive bids and invites banks and third-party funders to participate. While the buyer is still paying an invoice earlier than they could without the funding, they are not doing so solely to capture the discount; rather, they are able to free trapped cash and use it strategically to maintain or expand their supply chain operations and competitive advantage. When used correctly and by larger organizations, SCF has the potential to unlock billions of dollars in a company's cash flow.

For businesses with complex, widespread supply chains, SCF is a very strategic method for optimizing working capital. It helps buyers reduce cash conversion cycles without dramatically impacting their supply chain or their suppliers' financial needs. It also allows buyers to more easily fund purchases from suppliers in countries where credit is difficult to come by.

SCF can be lucrative for large suppliers who have cash flow needs, as the discount rates associated with SCF are generally lower than the finance rates of short-term loans. Cash-strapped buyers who have other priorities—such as a monthly revolve—or those who are unable to budget their DPO, generally split the returns from a SCF program, while third parties get a short-term (under 56 days) return well over one percent.

Organizations will typically find some sort of working capital tool within their invoice or payments management solution; most often, it is a simple discounting tool that can be leveraged during the invoice management process. There are also a few standalone working capital management providers that offer a diverse set of tools, including advanced DDM, several different kinds of SCF options, and/or the ability to leverage virtual cards to strategically restructure payments

and capture rebates. These standalone providers often feature integration capabilities that enable clients to connect the solution with their existing systems, including payables solutions and ERPs.

Reporting and Analytics

Reporting and analytics tools are often built into a payables automation platform, and serve as a way to collect and analyze information gathered from the invoice-to-payment process. Reporting and analytics tools give companies the opportunity to pinpoint process trouble spots and enhance future operations— greatly increasing the long-term ROI of a payables solution.

What is the Value?

Much in the same way that a water wheel can turn a quiet stream into a source of energy, spend management software can turn passive transactional data into fuel for process enhancement, cost control, and savings opportunities.

Who Benefits?

Reporting and analytics tools are beneficial for users of all levels in an organization, but they have more value for administrative users with strategic tasks and goals. It is important for these players to understand all spend activity so that they can optimize spend policies and controls. They use reporting and analytics tools to support tasks like identifying employees conducting fraudulent activity or spending out of company policy, adjusting budgets, viewing approvers that take too long to approve invoices, or viewing suppliers that frequently send duplicate or incorrect invoices. By looking at this information in a holistic manner, these users can identify the spend and activity trends impacting their business, allowing them to make strategic changes that will improve efficiency and save money. The insight brought by reporting and analytics tools gives C-suite professionals the opportunity to pinpoint process trouble spots and enhance future operations.

How Does it Work?

Most payables solutions combine process transparency with robust reporting and analytics tools, greatly improving an organization's ability to audit, analyze, and improve procedures. Reports can be exported as spreadsheets, and can include first-pass success rates, exception rates, and open invoices for any

defined period of time. Some solutions feature internal benchmarking, allowing users to review how their organization compares to other end-users of the solution. Leading solutions offer a drag-and-drop report building functionality and exceptional drilldown capabilities from within a reporting dashboard.

Many AP management systems also offer sophisticated invoice and payment audit technologies. Audit solutions can integrate seamlessly with numerous accounting applications, and can flag potential duplicates. Clients have the option of configuring the business logic that will be applied to identify erroneous payments, and the solutions generate reports on a periodic basis highlighting potential payment errors for resolution.

Built-in reporting allows users to run their transactional data through controlled reporting templates, automating much of the analytical work. The information used in these reports is extracted from all areas of invoice-to-payment process, and the solution can also leverage data from the organization's existing systems.

Some providers give their customers a set of pre-built reports, while others allow the client to carefully design the reports upon implementation. The provider may also create and add new reports that are specifically tailored to the client's organization and processes. Although the provided reports are pre-built, they are still often highly customizable after implementation as well. Users can drag and drop report fields, narrow down search items, or integrate reports or dashboards with user interfaces, such as the homepage of an invoice approver.

Reporting and analytics tools also allow users to drill down into report details. Some solutions even allow users to look at a broad set of information from different perspectives. For example, a list of transactions could be viewed from a broader operational standpoint by a CEO, or with a financial focus by a CFO. This capability allows an organization to take a single set of data and spin it multiple ways, gaining unique and valuable insights in many areas of the business.

Users can also bring in data from new places, and leverage it to gain new perspectives into spend, such as using integrated maps tools to show the locations where spend is occurring. In addition, users can extract data from the system by running query reports and exporting all data to Excel or the format of their choice.

Supplier Management

Supplier management tools, typically offered through a self-service supplier portal, give companies more control over supplier data, and provide suppliers with real-time visibility into invoice and payments statuses.

What is the Value?

One of the greatest values of a supplier management tool is the way it brings many different moving parts and types of information into one platform. It also fosters more communication and transparency among all parties.

Who Benefits?

Both the company and the supplier benefit from supplier management tools. The primary advantage is in the self-service controls given to the supplier, followed by the reduced need to handle supplier dispute and queries, as many of those issues come from the pains of manual processes. Automating the payables process reduces supplier disputes and improves supplier relationships, as well as supply chain operations on the whole.

How Does it Work?

Supplier self-service portals help to speed up and streamline invoice processing. Supplier portals allow suppliers to upload invoices, check on the status of invoices, and communicate with buyers about exceptions and errors. Some solutions permit buyers to create custom business rules at the point of supplier portal invoice upload. These rules create instant error notifications and allow PO flip from within the portal. Some solutions also enable suppliers to input payment preferences, and upload and verify payment information. These portals also facilitate better supplier-buyer communication and dispute resolution.

Where to Begin in Automating Payables

This report has provided a great deal of information on a very expansive software set. While the best-case scenario for any company would be to fully automate the entire payables process using each tool covered, this is not a realistic option for many companies. For some organizations, the idea of a complete process transformation seems virtually impossible under their current budgets, structural concerns, and current state parameters.

Payables automation should not be avoided because of an organization's constraints, but should be approached with these constraints in mind. In other words, there are many different ways to automate the payables process according to the unique characteristics of any company, including their unique restrictions. A company does not have to jump into automation with a fully-featured ePayables tool, but can begin automating with one element of a software suite and scale up as needs and budgets change. With the proper preparation and discovery methods, any organization will be able to find the perfect payables tool with which to start their process transformation.

One of the best ways to find a suitable automation starting point is to map out the current state and identify benchmarks against similar organizations. In order to give readers an idea of some common benchmarks, Table 1 contains several current state parameters of different company archetypes, as well as the automation and improvement goals of different archetypes.

TABLE 1
Payables Archetypes by Revenue

Payables Archetype Components	Overall	SME	Middle Market	Enterprise
Invoice receipt type	Paper, email	Paper, email	Paper, email	Email, web upload/supplier portal
FTE employees	11	4	10	24
Cyclical/temporary labor	2	1	1	5
Manual routing methods (of the 48% not using IWA)	First: We use an IWA tool Second: Scan the invoice and attach it to an email	First: Scan the invoice and attach it to an email Second: We use an IWA tool	First: We use an IWA tool Second: Scan the invoice and attach it to an email	First: We use an IWA tool Second: Scan the invoice and attach it to an email

Payables Archetype Components	Overall	SME	Middle Market	Enterprise
AP Pains	First: Manual data entry and inefficient processes Second: Lost or missing invoices	First: Manual data entry and inefficient processes Second: Majority of invoices received in paper format	First: Manual data entry and inefficient processes Second: Majority of invoices received in paper format	First: Manual data entry and inefficient processes Second: High number of discrepancies and exception
AP Goals	First: reduce overall payments costs (staff, processing, etc.)	First: reduce overall payment costs (staff, processing, etc.) Second: Reduce paper	First: reduce overall payment costs (staff, processing, etc.) Second: Reduce paper	First: reduce overall payment costs (staff, processing, etc.) Second: Better cash management
Barriers to Adoption	First: Lack of budget Second: Current processes work	First: Lack of budget Second: Current processes work	First: Lack of budget Second: Current processes work	First: Lack of budget Second: There will be no ROI
Most common payment type	Check	Check	Check	ACH
Greatest payment process challenges	First: Missed discounts Second: Late payments	First: Late payments Second: Duplicate payments	First: Missed discounts Second: Duplicate Payments	First: Missed discounts Second: Late payments
Favorite AP management tool feature	First: Electronic payments Second: Front-end imaging (scanning)/OCR/automated data capture	First: Front-end imaging (scanning)/OCR/automated data capture Second: Electronic payments	First: Front-end imaging (scanning)/OCR/automated data capture Second: Electronic payments	First: Electronic payments Second: Front-end imaging (scanning)/OCR/automated data capture
Favorite electronic payments tool	Corporate travel cards	Traditional p-cards	Traditional p-cards	Corporate travel cards

Once a company has established its place among its peers, it can lay out its next steps. Some of the best next steps are establishing goals and identifying appropriate questions to begin asking internally (e.g., stakeholders, staff, etc.) and externally (e.g., solution providers). The bullets below are a few examples of questions organizations can ask once they have evaluated their current state.

- » What is the invoice receipt current state?

- » How often are temporary employees needed?

- » What are the AP team's top pain points?

- » What is the costliest aspect of the current payables process?

- » What are middle management's top goals?

- » What are the C-suite's top goals?

- » What is the budget for technology investment?

- » What aspect of the payables process is most important to automate?

- » What tool among payables automation software is most appealing to the organization?

The purpose of these questions is to help those initiating change and evaluating software establish goals for their future state of payables management. These questions are also useful when gaining buy-in from key stakeholders, and cooperation from external parties (e.g, suppliers). The organization should also create a list of essential and non-essential requirements for a solution based on the results of these questions, including functionalities, key performance indicators (KPI), improvements, and time-driven ROI goals. For example, if a company determines that they have high paper volume across many widespread locations, they may benefit from choosing a payables automation provider that offers mailroom services, either in house or through a partner. In another example, if a company determines that they must hire cyclical temporary labor on an annual basis, they may also discover that this labor is necessary based on influx of tasks that are currently manual but have the potential to be automated. The company could then assume that this need for cyclical labor would be reduced by the adoption of a payables solution. This is one such current

state parameter for which it would be fairly simple to estimate an ROI upon automation.

In order to further guide an organization in their search for payables process improvement, the following profile summarizes the features and services of one of today's leading payables automation providers.

Artsyl

Artsyl has offered software for intelligent document capture, workflow automation, and invoice management for over 15 years, releasing its invoice solution, InvoiceAction, in 2013. Artsyl offers InvoiceAction along with its flagship product, docAlpha, a digital transformation platform, to enterprises of all sizes in a variety of industries, including shared services providers. The company helps clients process millions of documents each year across a variety of types, including invoices, medical claims, and government documents.

Founded	2002
Headquarters	Toronto
Other Locations	Kiev, Tampa
Number of Employees	51
Number of Customers	500+
Target Verticals	Corporate Finance, Manufacturing, Financial Services, Healthcare
Partners/Resellers	SAP, docSTAR/Epicor, ReQlogic/UXC/CSC, Acumatica

Solution Overview

Artsyl partners with Microsoft, and its products are developed using Microsoft .NET and Services Oriented Architecture; Artsyl also follows all standard security models from Microsoft. Artsyl's products leverage tight API-based integrations with major ERP systems such as SAP, Oracle/NetSuite, Microsoft Dynamics, Acumatica, Sage 100/500, Sage Intacct, Epicor, and SYSPRO, and integrate with even more using EDI 810 and web services. InvoiceAction is available in English, French, German, Spanish, Chinese, and Russian. The product supports OCR data capture for over 100 languages including Arabic, Thai, Hebrew, Chinese, Japanese, Korean, and Vietnamese.

Payables Management

InvoiceAction and docAlpha automate many of the most painful steps in invoice processing—manual data entry, approval routing, matching, and GL coding. Artsyl's docAlpha solution can extract data from any digital or paper document with intelligent capture technology, leveraging InvoiceAction to handle a specific business document flow—vendor invoice processing. docAlpha validates

captured invoice data using its own algorithms and by cross-referencing information against the clients' ERPs or other business systems. docAlpha then applies business rules to extracted data to automate AP functions like approval routing and matching.

docAlpha allows for multi-channel submission of invoices via email, scanned paper, fax, FTP site, WebDAV folders, and EDI. Artsyl supports PDF and other image formats such as TIFF, JPEG, BMP, and PNG, or electronic invoice formats such as EDI, XML, TXT, CSV, Word, and Excel. Artsyl also offers a supplier portal that gives suppliers direct invoice submission/generation capabilities for multiple formats (EDI, PO flip, web forms, etc.), as well as the ability to view and monitor invoices in progress.

InvoiceAction extracts relevant header and line item data from invoices and related procurement documents, validating that data by cross-referencing existing ERP system records. InvoiceAction then relies on the extracted data to provide 3- and 4-way matching with transactions within the ERP system, or automatic exception routing according to pre-defined business rules. InvoiceAction supports field-level matching based on business rules, and invoices can be routed back to suppliers with rejection explanations.

Automatic email notifications alert staff to exceptions that need attention, and automatic escalations ensure that nothing remains in any individual's queue for too long. InvoiceAction supports out-of-office forwarding, escalations and reminders, and workload balancing. The solution also offers automatic approvals on recurring invoices, such as utility bills. InvoiceAction is web-based, and its responsive-design application can be accessed from any mobile device. Emails contain hyperlinks to launch the application and allow users to manage their invoices from any tablet or mobile device. In terms of payments, electronic payments are offered through third-party integrations.

Artsyl can store invoices in file servers and enterprise content management (ECM) systems for later search and retrieval. The company also supports SharePoint and leverages content management interoperability services (CMIS) for content connectivity with other major ECM systems.

Artsyl's solutions use a transaction statistics server to collect and report on all facets of any transaction processed through the system. The solutions offer reports that can be configured to present all possible KPIs for a client. Artsyl's consulting staff works with all clients to map out the current processes and re-

engineer them leveraging the features of docAlpha and InvoiceAction.

Implementation and Pricing

A typical implementation can range from a few days to a few months depending on its complexity. The software is available for on-premise, hosted, or public cloud deployment. Artsyl provides full operator and administrator training as part of the standard implementation. After implementation, Artsyl offers full technical support 24/5.

The solution is priced per transaction.

About Levvel Research

Levvel Research, formerly PayStream Advisors, is a research and advisory firm that operates within the IT consulting company, Levvel. Levvel Research is focused on many areas of innovative technology, including business process automation, DevOps, emerging payment technologies, full-stack software development, mobile application development, cloud infrastructure, and content publishing automation. Levvel Research's team of experts provide targeted research content to address the changing technology and business process needs of competitive organizations across a range of verticals. In short, Levvel Research is dedicated to maximizing returns and minimizing risks associated with technology investment. Levvel Research's reports, white papers, webinars, and tools are available free of charge at www.levvel.io

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