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# Using Advanced Document Process Automation to Improve the Financial Supply Chain

*By Amy Fong, Patrick Connaughton and Lynne Schneider*

## Executive Summary

For many organizations, the ERP is an entrenched system of record. However, ERPs are not optimized for all the complex activities occurring today, such as matching printed or electronic invoices with supplier master data, purchase orders, shipping, tax and discount data. Since it can be cost-prohibitive to replace a legacy ERP, companies often augment them instead with document management systems. Historically, these systems relied on optical character recognition (OCR), which could be cost-prohibitive and still required a high level of manual intervention to ensure data quality. Fortunately, the latest generation of document management systems are better able to "learn" patterns and fix data issues automatically, reducing the need for manual intervention and lowering the total cost of ownership over time. Because they also can match data from disparate systems and pull it together in a cohesive, understandable way, these solutions are proving to be an excellent fit for end-to-end processes like purchase-to-pay, order-to-cash and record-to-report.

## The Evolution of Document Processing Solutions

The limitations of legacy ERP systems created an opportunity for solutions that automate financial processes and bring together unstructured information in diverse formats with structured data. This enables validation and consistency of information at every process stage, improving visibility and audit support.

The earliest document processing systems involved optical character recognition (OCR). Initially, these systems were seen as a cure-all for the "paper problem." Unfortunately, the full benefits promised by first-generation OCR solutions seldom materialized due to their high error rates and insufficient integration with other business systems.

Data capture and invoice processing solutions have improved significantly in recent years, but human intervention is still sometimes necessary. Many newer document processing systems can take otherwise unreadable information from XML or EDI transactions and tie it to a customer order or invoice, making it far easier for a human to read the document and address exceptions.

Today's systems take data from paper, faxes, email attachments, portal submissions or other electronic communications and transform it into a digital format. This technology, which goes by a variety of names – intelligent data capture (IDC), advanced recognition (AR) or intelligent document recognition (IDR) – has greatly increased the accuracy of information accuracy through its ability to "learn" to recognize supplier invoice layouts and "verify" document details against data elements from ERP and purchasing systems.

It is essential to note that document processing systems have evolved from simple imaging tools and now provide broader process flow and content management capabilities, as we discuss below.

## Using Document Processing in the Financial Supply Chain

Several process areas in the financial supply chain are suitable for document processing automation. In fact, there are advantages to seeking a cross-process solution. The purchase-to-pay processes, where buyers and sellers trade the most information, offer the best fit. The physical documents involved in the record-to-report process can also be automated to bring data into the system of record, traditionally the ERP.

### *Purchase-to-pay*

The purchase-to-pay process (**Fig. 1**) is ripe with opportunities for electronic invoice capture and automated processing workflow. For example:

- **Purchase order and receipt processing:** Paper-based and electronic documentation from purchasing can be captured electronically by a processing system for use in later stages of the P2P process. The system can route ordering and receiving that occurs in multiple environments and with multiple users into a single AP group.

- **Invoice pre-processing:** At the time of invoice receipt, processing systems can incorporate invoices that originated in an assortment of formats: by scanning a physical document, by reading contents of an email or electronic fax, or by translating data from a portal upload or EDI transaction. Through enhanced recognition of the image, extraction and validation of digital information, the data from a document or transaction is captured for workflow connectivity with downstream systems. Further, by automatically sorting paper documents and eliminating the need for batching of invoices, advanced invoice capture solutions reduce pre-processing activity compared to traditional imaging solutions and manual processes.

  While many companies have true e-invoicing as their goal, Hackett Group research shows that it is common to struggle with supplier onboarding and implementation across the full range of transactions. In fact, our 2015 Purchase-to-Pay Performance Study showed that typical (i.e., peer-group) organizations receive only 19% of invoices electronically. Document processing systems offer a significant opportunity to automate in ways that do not require supplier onboarding. Advanced invoice capture requires little or no supplier compliance or standardization and brings non-automated invoices into an automated process.

- **Verification and approval:** Many invoice capture solutions have the functionality to assist in this subprocess by automating the routing of approval flows, verifying accounting codes, and providing interfaces to match against POs and open receipts.

- **Invoice processing:** Through validation capabilities that integrate with purchasing and master data management (MDM) systems, invoice capture solutions support auto-matching of PO-based invoices and touch-less processing of non-PO invoices. This significantly streamlines what has traditionally been the most resource-intensive accounts payable subprocess.

- **Discrepancy resolution:** By validating invoice information against purchasing and master data systems and increasing overall recognition rates, invoice capture solutions enable better price and receiving controls, thereby reducing discrepancy resolution costs.

- **Inquiry response:** Some invoice capture solutions increase the efficiency of inquiry response activity by including related transactional documents to help staff respond to suppliers/vendors and make better decisions. Self-service functionality allows suppliers and internal users to look up the status of any invoice online.

- **File, store and retrieve:** By imaging the invoice upon receipt, most organizations will be able to adopt a policy of destroying the physical invoice after two or three months. This eliminates physical storage costs as well as the cost of sending the hard-copy invoices for approval, storage or use in an audit. Sixty-six percent of companies studied by The Hackett Group use imaging tools in their file/store/retrieve process. More than half report using imaging as an entry point to automated workflow management; at these companies, an average of 84% of invoices go through the imaging process.

**FIG. 1   Purchase-to-pay process**

| Requisition & PO processing | Supplier scheduling | Receipt processing | Item master/content management | Catalog management | Contract master management |
| --- | --- | --- | --- | --- | --- |

| Supplier master management | Invoice pre-processing | Verification and approval | Invoice processing | Discrepancy resolution | Supplier payment |
| --- | --- | --- | --- | --- | --- |

| Customer inquiry and response | File, store, & retrieve | Reconciliation, accrual and compliance |
| --- | --- | --- |

■ PURCHASING OPERATIONS   ■ ACCOUNTS PAYABLE

Source: The Hackett Group

While 30% of users have a rules-based system for reading invoices, 50% have adopted a hybrid approach, with templates for standard invoices and rules-based processing for others. Systems tend to be well integrated: 91% of organizations using OCR have blended their imaging system with broader business systems, making it a standard step in their invoice and payment process.

*Order-to-cash*

The order-to-cash process offers another opportunity for process automation (**Fig. 2**). Because most organizations find that orders and supporting documentation still arrive in inconsistent formats, managing them manually can limit visibility to orders, increase error rates, delay shipping and billing, and reduce customer satisfaction.

**FIG. 2   The order-to-cash process**

| Credit management | Order management | Customer billing | Cash application | Collections management | Dispute management |
| --- | --- | --- | --- | --- | --- |

Source: The Hackett Group

Automating these process steps enables faster, more accurate handling of receivables, reduces DSO and permits access to current information about customer payments. Cash application, payment processing, dispute management and order creation processes all benefit from the ability to apply simple decision intelligence. The order-to-cash process steps that gain the most from document processing are those where unstructured data needs to be tied with structured formats. For example:

- **Credit management:** Digitizing forms such as applications and financial statements offers accessibility in a central database. Moving paper-based, customer-facing processes online can be the first step in automating review and processing.

- **Order management:** The handling of inbound documents from customers and company-wide distribution of documents can both be streamlined with document processing automation. Hackett Group data show that world-class finance organizations receive 27% of their orders electronically (versus more typical companies' 14%), but all companies clearly have room for improvement. For example, customer service representatives may use email to communicate specific instructions to customers. The content management functionality of these systems can link to keywords in emails to make this previously unshared information more broadly available. Rules such as special pricing can be digitized, saving time and eliminating pockets of "tribal knowledge" in customer service and sales departments. Approval of orders can be accelerated by automatically routing those needing special processing based on order conditions, pricing approvals or inventory confirmations.

- **Customer billing:** Automation of invoices and statements is nearly universal today. According to our methodology, the world-class group uses automated billing for 99% of invoices compared to the peer group's 93%.

- **Cash application:** Remittance advice and payment receipts from various sources can be automatically captured, regardless of how they arrive (i.e., via email, lockboxes, EDI or another format). Accounts receivable organizations using document processing can automate the process of matching remittance information with invoices to reduce the amount of unallocated payments. World-class finance organizations in our database have a 70% match rate for automated remittance posting. This is significantly higher than the peer group's 35% rate. With automated application, companies can apply cash faster and identify discrepancies at the time remittances are received rather than waiting for a manual review.

- **Collections management:** Use of electronic message routing and imaging of items such as proof of delivery, invoices and orders are proven best practices. The easy accessibility of documents in this format gives collectors the documentation they need to resolve problems and conduct credit status updates. A processing solution can bring together these forms of documentation from varied sources.

- **Dispute management:** Top performers follow a formal process for identification, communication and follow-up for general issues and disputes. Documentation to investigate and resolve disputes can be imaged and tracked with an audit trail that supports a centralized or cross-border team effort, with processing solutions serving as case management tools.

Some document processing systems that bring relevant information into a digital format also make it possible for customers to view their own information through self-service capabilities, raising satisfaction levels. At world-class finance organizations, 42% of customers can access account information via Web-based applications, but only 11% can do this at peer-group organizations.

### Record-to-report

While the ERP is the system of record relied on for financial close, it is not good at facilitating capture, management of or access to any of the unstructured information that clarifies and supports recorded transactions. For that reason, companies with a higher level of automation tend to have a faster close. Document processing can be a part of this solution by automating some of the workflow and providing content management tied to system entries for the record-to-report process (Fig. 3). For example:

- **Journal entries:** Workflow processing systems are especially useful for automating routing processes with logic. Creating rule-based journal entries can streamline accruals, provisions, reclassifications and adjustments. Our research shows that world-class organizations companies automate 95% of general ledger journal entries, versus 84% for peers.

- **Reconciliation:** Automation can benefit all balance sheet reconciliations by controlling issue/exception management and resolution, leading to more accurate, real-time balances. The same principle can be applied to intercompany reconciliations, including the

real-time matching of transactions and resolution of differences between counter-party balances. Systems can also execute controls to ensure the completeness, accuracy and validity of accounting records and financial statements during period close and consolidation. Automation in this area remains in its infancy, but top performers are ahead, with 22% of balance sheet account reconciliations automated compared to 10% for peers. Working outside the ERP is becoming an acceptable option. Among those using automation, the primary system for account reconciliation is a separate, bolt-on/best-of-breed tool. This is in use at 43% of top-performing organizations compared to 28% of the peer group.

- **Accounting close:** Closing the books entails control of the end-to-end entity close process, including the management of tasks, dependencies, alerts and escalations. It is essential to provide complete audit trails and audit evidence for all period-end closing activities. Document processing tools' ability to manage content can be key to building a virtual paper trail in this process. Today, only 43% of record-to-report top performers and 37% of peers use automated workflow tools for closing, but these percentages are expected to rise. Sixty-seven percent of top performers (but only 35% of peers) indicate that less than 40% of their close activities are still done manually.

**FIG. 3   The record-to-report process**



Cost accounting → Inter-company → Fixed assets → General ledger → External reporting

Source: The Hackett Group

## Looking Ahead

While companies are quicker to see the benefits of automation in customer and supplier-facing processes, there is much to be gained by bringing imaging and workflow techniques into the internal processes of financial accounting.

As more organizations move to centralize these and other transactional activities in shared service centers or Global Business Services (GBS) organizations, there is an opportunity to invest in a single document processing solution to support the three end-to-end processes discussed in the previous pages – and possibly other paper-intensive, industry specific activities.

Improving processes and eliminating non-value-adding tasks may offer significant savings. But increasing efficiency is only one part of the equation; making processes more effective will also yield substantial rewards in the form of better customer service, working capital, spend visibility and predictability. Within a single process, document processing systems offer a sizable return on investment. But even more benefits will accrue to companies that leverage a common system across multiple process towers, ranging from greater consistency in financial processes from end to end to tighter process linkage.

Furthermore, when order-to-cash and purchase-to-pay workers share a tool, they can better monitor the balance of trade with suppliers that are also customers. Moreover, a single platform for managing invoices and orders provides a great deal of visibility into the financial supply chain. For instance, knowing that a customer has a late payment problem may highlight a supplier risk, or at least an issue to be raised in ongoing supplier business reviews. And finally, treasurers focused on managing cash reserves are helped by having a single view of cash flow into and out of the organization.

When considering a cross-process solution, companies should assess the candidate solutions with the following features in mind:

- **Integration with other software:** Integration with both the ERP and interfaces with other third-party best-of-breed software should be streamlined. The application should capture and import header fields and line-item content with an intelligent connection.

- **Installation and setup time:** Which required resources are available for support, both internal and those provided by the software vendor? The availability of pre-configured profiles and templates can be a timesaver by leveraging best practices already implemented by other customers.

- **Input formats:** What types of content can be captured? Capture formats should go beyond paper documents and include formats common to the user's organization. In addition to paper, some systems allow for digital documents, images, envelopes, fax, email, and transmissions from an FTP server, XML and EDI.

- **Capture accuracy:** How are both structured and unstructured documents accepted? Can the system can recognize print, handwriting and marked fields? Is detail at both the header level and line item level captured? These factors can be differentiators between systems. Determine if templates are required, and what level of supplier compliance is needed for implementation.

- **Usability:** How much of the process will be done in a best-of-breed system as opposed to the ERP? User testing of the interface may be helpful, as will having a potential "super user" evaluate the configurability of the interface to see how well it meets the company's specific needs.

- **Licensing:** Commercial considerations are always relevant, if the plan is to implement the system across process areas or groups. The flexibility of the licensing model is also important. The user base should be defined before a package is negotiated, and updated as access and configurability needs become clearer.

- **Language and currency flexibility:** Language capabilities may be a consideration for centralized processing centers. Fortunately, systems' ability to recognize and process double-byte character sets has increased greatly in the last several years. When evaluating language needs, consider both the user interface language and the document language. It is quite common for business to be conducted in English or in a short list of other widely spoken languages, but further down the supply chain, smaller suppliers and customers may operate in local languages. For most documents, the system reads numbers, not characters, so even those printed in a different language may be at least partially readable by an imaging system.

- **Reporting and analytics:** Consider the type of reporting that exists now and the potential for streamlining reporting, as well as availability of near-real-time process analytics or dashboards. Some systems offer preconfigured reports and configurable reporting that save time for users and provide actionable analysis.

- **Overall cost of ownership:** A total cost of ownership (TCO) analysis is always a good idea. Factors to consider include installation (internal and consultant costs), upfront licensing, ongoing cloud costs, ongoing maintenance costs, training, support and help-desk requirements.

All data cited in this report is ©The Hackett Group and drawn from multiple sources, including our Account-to-Report Performance Study (2014) and Finance Process Benchmark (2015).

## Related Hackett Research

"The Close-Related Practices of Top Performers: Essential Steps for a Better Monthly Close," August 2015

"Leaders of Account-to-Report: Key Performance Levels and Methods," April 2014

"Accounts Payable Automation: Five Technology Advancements Helping to Break Down Adoption Barriers," December 2013

"The Case for Invoice Capture: Transform Accounts Payable with These 5 Simple Truths," February 2012

## About the Advisors

### Amy Fong
*Senior Procurement Advisor and Purchase-to-Pay Process Advisory Program Leader*

Ms. Fong has 20 years of experience in both industry and consulting with a focus on procurement, supply chain and organizational effectiveness. She helps business leaders improve their source-to-pay processes, manage complex supply-chain partnerships, and develop or enhance their organization's service delivery model. In addition, Ms. Fong performs extensive primary research and has written extensively on source-to-pay and operations topics.

### Patrick Connaughton
*Senior Research Director*

Mr. Connaughton leads the development of The Hackett Group's intellectual property in the areas of strategic sourcing and procurement. He has over 15 years of experience in supply chain and procurement research and advisory roles. He has published groundbreaking research in areas like spend analysis, contract life cycle management, supplier risk assessments and services procurement. Prior to joining Hackett, he was principal analyst at Forrester Research, where he focused primarily on helping executives mitigate risk through more effective supplier relationship management. Previously, Mr. Connaughton was a consulting manager at Manhattan Associates and Accenture.

### Lynne Schneider
*Senior Research Director*

Ms. Schneider is responsible for leading the development of research and other intellectual property for The Hackett Group's Executive Advisory Programs in Finance and Enterprise Performance Management. She has worked in consulting and related research for over 20 years. Her previous positions included Director of Research for Kennedy Consulting Research and Advisory, as well as a variety of internal and external consulting positions with international companies. As Director of Business Process Improvement at American Greetings, Ms. Schneider managed a portfolio of strategic and operations projects, including both staff and line functions. She was also a senior consultant in Towers Watson's Organization Effectiveness practice and a consultant in the Change Management practice at Accenture.

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Email: info@thehackettgroup.com
www.thehackettgroup.com

Atlanta +1 770 225 3600
London +44 20 7398 9100
Sydney +61 2 9299 8830

Atlanta, Chicago, Frankfurt, Hyderabad, London, Miami, Montevideo, New York, Paris, Philadelphia, San Francisco, Sydney, Vancouver

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