Extending Capture Capabilities – Measuring the ROI
About the Research

As the non-profit association dedicated to nurturing, growing and supporting the ECM (Enterprise Content Management) community, AIIM is proud to provide this research at no charge. In this way the education, thought leadership and direction provided by our work can be leveraged by the entire community. Our objective is to present the “wisdom of the crowds” based on our 55,000 strong community.

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Process used and survey demographics

The survey was taken by 677 individual members of the AIIM community between April 6th and April 30th, 2009, using a Web-based tool. Invitations to take the survey were sent via e-mail to a selection of AIIM’s 65,000 registered individuals.

Survey population demographics can be found in Appendix A. For most graphs throughout the report, organizations of less than 10 employees, and those who are suppliers of ECM systems or services, are excluded.

About AIIM

AIIM (www.aiim.org) is the community that provides education, research, and best practices to help organizations find, control and optimize their information. For more than 60 years, AIIM has been the leading non-profit organization focused on helping users understand the challenges associated with managing documents, content, records and business processes. Today, AIIM is international in scope, independent and implementation-focused, acting as the intermediary between ECM (Enterprise Content Management) users, vendors, and the channel.

About the author

Doug Miles is head of the AIIM Market Intelligence Division. He has over 25 years experience of working with users and vendors across a broad spectrum of IT applications. As an early pioneer of document management systems for business and engineering applications Doug has been involved in their evolution from technical solution through business process optimization to enterprise infrastructure platform. He has also worked closely with other enterprise-level IT systems such as ERP and CRM, has an MSc in Communications Engineering and is an MIET.
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Introduction

To manage any form of content, you first have to capture it. Capture by itself will not produce any cost savings. The savings come from the process benefits and opportunities that flow once a document is freed from its physical form. It can then be data-extracted, indexed, viewed, moved, replicated, workflowed, stored and preserved electronically.

We found from our survey that investments in document scanning and capture, when taken as part of a specific process improvement, can produce considerable cost savings in relatively short timescales – frequently paying back the initial investment in less than 12 months. In addition, the availability of electronic documents continues to earn long-term returns in speed of information access, stronger compliance, better customer service, and considerable space-saving.

Our findings indicate that most companies have already made some investment in capture technology but they are currently scanning only a small proportion of the documents and forms that could usefully be scanned. This is frequently because of limited access to a scanning platform close to – or integrated with – the process.

Key findings

- In general productivity terms, 42% of organizations have increased productivity by 50% from their scanning and capture investment, with most achieving at least a 20% improvement.
- Across the whole range of projects, 43% have achieved payback within 12 months, and two-thirds within 18 months.
- Over 50% consider scanning and capture to give a “better” or “much better” ROI compared to other IT investments, with a further 40% saying “about the same.”
- One-third feel they are only scanning 10% of what could usefully be scanned, and another third only 50%.
- Improved access to information is by far the biggest business driver for scanning and capture investments, followed by compliance, productivity and improved customer service.
- Nearly half have achieved savings of 40% or more on paper storage costs.
- Most people would like capture to integrate directly with the business process, but key business systems (CRM, ERP etc.) are capture-enabled in less than a quarter of sites.
- In our survey, 35% use distributed scanning, usually in addition to centralized scanning. 51% use just centralized or process-specific scanning. The remainder (24%) use ad hoc scanning not linked to document management.
- 24% of organizations with centralized scanning continue to photocopy documents prior to sending for scanning.
- 62% feel that indexing would be considerably more accurate with distributed capture closer to the process, and only 11% feel there would be staff resistance.
- 41% of forms from field staff are manually processed. Just 16% are scanned on site.
- Spending on scanning and capture is likely to hold its own in the next 12 months.
Financial Justification for Capture Investments

Over the years, scanning has become the unassuming stalwart of Enterprise Content Management (ECM), a necessary but unglamorous process looking back at the old paper-bound world rather than forward to the all-electronic office. Substantial numbers of process-specific projects such as census forms, tax returns, claims cases, consumer coupons and delivery dockets continue to be the powerhouses of the scanning world, driving down the time and costs of processing these document types. Many of these operations would now be unthinkable if they required manual data processing. Other projects have been driven by outsourcing or off-shoring, where savings have come more from reduced labor costs than smarter capture or improved processes. One-off, back-file conversions have sustained many service bureau operations, providing economies of scale and highly optimized paper handling.

A benefit of the well-established nature of capture technology, and its long-time focus on productivity improvement, is that it is a well-proven, relatively risk-free investment compared to many other types of IT spend, and it produces improved productivity in a relatively short period of time. Whereas in the past this equated to a greater capacity to take on more business, in the current climate it is more likely to allow staff reduction targets to be achieved without impacting performance and customer service. There is an added benefit that processes that can be automated in this way become self-documenting and so less reliant on staff experience. The processes are easier to geographically redeploy, and they are more easily scalable once better times return.

Basic productivity gains

As an overall measure of the effectiveness of scanning and capture, 42% of survey participants doubled productivity or better, with 85% seeing a minimum of 20% improvement. Open-ended comments included: “Our department can complete its function in 1/2 the time”; “Dramatically improved productivity and customer service.”

![Figure 1: By how much have you been able to increase your productivity (reduced processing times, increased processing capacity) by your current use of scanning and capture.](image)

Paper handling and storage

When we asked specifically about manual processing costs such as document sorting and data entry, over half of the sample had achieved savings of 40% or more. Savings in office space costs from electronic archiving have always been an important justification for document scanning. In this survey, we also mentioned record stores and Iron Mountain costs. We found that nearly half of our respondents had reduced their paper storage costs by 40% or more. Open-ended comments included: “On-site storage cost are drastically reduced”; “Considerable reduction in use of file cabinets and therefore, better use of office space”; “Before scanning, many staff had back injuries from lifting boxes of files.”
Overall return on investment

We first asked respondents to compare the returns from an investment in scanning and capture with those from other IT investments. The answer is perhaps one of the most conclusive that we have ever had to this type of question, with over 50% saying “Better ROI,” or “Much better ROI.” If we include those saying “About the same ROI” we have a success rate of over 90% for these projects. This question can often show up some implementation disasters in the “Worse” and particularly the “Much Worse” areas, and is an indicator of the potential risk factor. Scanning and capture is a very risk-free investment compared to most IT projects.

ROI within one year

One of the indicators we have had from other AIIM surveys during the current economic climate is that nearly 70% of respondents feel projects need to demonstrate a hard-dollar return on investment within 12 months in order to be approved. Frequently such justifications are determinedly optimistic, but we see clear evidence here from actual user experience that a payback within 12 months has been achieved by 43% of our respondents, with a further 24% breaking even after 18 months. Given that the sample will include some major project investments, this is very reassuring. Open ended comments included: “The benefits are huge and vastly outnumber the cost and effort taken to install”; “We have saved many millions of dollars since our first imaging system implementation.”
Business Drivers

An interesting finding that adds further weight to the potential returns achievable is that “Improved access to information” came out as the single most important driver for scanning and capture investments, cited by twice as many respondents compared to “Increased staff productivity” and “Reduced admin costs.” Improved access to information is generally considered to be a soft-dollar benefit, as it is somewhat difficult to measure. By implication, therefore, our respondents are achieving strong soft-dollar benefits in addition to relatively short-term hard-dollar ROI. Open ended comments included: “It has made our documents so much more accessible to the departments”; “Information available where it is needed”; “We are able to provide near real time authorized access to records.”

In second place is “Better compliance,” which we would describe as a benefit against the potential cost of failure of a legal or regulatory action. The drive towards “one button” legal discovery capability is likely to be a factor here, along with the fact that paper records are somewhat more expensive to search than electronic ones.
Expanding the Scope of Scanning and Capture

Historically, the big gains in scanning and capture have come from dedicated implementations feeding specific business processes from fixed-format forms. It seems likely that many businesses still think this way, rather than considering how distributed scanning, based around local scanners, multi-function devices (MFDs) or multi-function printers (MFPs) can make a significant productivity impact on everyday business processes, and on information exchange within the enterprise.

*Figure 6: Which of the following best describes the existing approach to scanning and capture in your organization?*

Ad-hoc scanning but not linked to any DM systems.

One or more dedicated scanning operation(s) each linked to a specific business process.

Centralized in-house scanning operation servicing a number of business processes.

Outsourced/bureau scanning operation servicing a number of business processes.

We operate a centralized mailroom scanner for all incoming mail.

Distributed capture across a number of departmental scanners/MFDs.

We have a mix of central and distributed scanning.

Technology

Technology advances in scanning and capture have occurred in a number of areas. Adaptive scanners, automated post-processing and intelligent recognition have made it easier to accommodate multiple forms and document types, in short runs and with non-specialist staff. Automated classification can cut indexing costs and improve digital mail routing. Meanwhile, the ubiquitous presence of a multi-function printer in every office has provided a scanning capability alongside every business process—albeit cunningly disguised as a photocopier in most instances. And finally the emergence of the capture platform as a flexible infrastructure, installed once, but connected in many places and to many devices, provides a common interface for centralized and distributed capture, as well as capture-enabling other business applications.

Range of captured documents

One element of these technology advances is that the range of forms and documents that are candidates for scanning has increased considerably. Indeed, when we asked our respondents for their own estimate of what percentage of documents and forms that could usefully be scanned, were being scanned, one-third felt they were only scanning 10% of those possible, and a further third were only scanning 50%. Given the potential savings discussed earlier, this shows that there is considerable scope for further productivity improvements by increasing the range of documents scanned.
Figure 7: What percentage of business process documents and forms which could be scanned are you currently scanning?

We followed this up to find out why these forms were not currently being scanned. There was recognition that these projects would need to be addressed when time allowed, and that when they were, cost benefits would flow from doing so. A more tangible reason was a lack of capture facilities close to the business process, or a lack of capacity through the centralized scanning operation. This issue could most likely be resolved in many organizations by making better use of existing MFPs for process-document scanning, preferably by connecting them to a common distributed capture infrastructure.

Figure 8: What would you say are the two most prevalent reasons that you are not scanning these business process documents and forms?

Another frequently cited reason was the need to retain paper copies for audit and compliance, which may be an issue that requires better education on records management practice. It’s interesting to note that very few documents were considered to be too complex to be scanned.

Capture-enabled systems

We asked which aspect of the capture process is or would be the most important to automate, and “integration with the business process” was ranked the highest, well above auto-classification and data extraction. However, the mind-set of classic Document Management archival systems may be masking the possibilities of a more universal use of capture across core enterprise systems, such as ERP, HR, and CRM.

Invoice Automation is now a well understood application where data extraction from the scanned paper invoice is used to match the system-stored invoice in the accounts payable system. From this point, automated workflow can rapidly speed up further processing. While this is a fairly common application, there are many more potential instances where information from paper documents can
be automatically input at the appropriate stage in a business process workflow. Here again, it may be important to provide a point-of-capture close to the business process operation.

Figure 9: Which of your enterprise systems are capture-enabled for integrated input of scanned documents, invoices and forms?

Capturing forms in the field

One other area of extension made possible by distributed scanning is that of field-staff, or branch office staff, scanning in forms locally and transmitting them back to head office electronically. The content can be as simple as expense claims, or as complex as medical assessments. We found that 41% of forms are either manually keyed or manually filed back at base, with just 16% of field staff scanning on site. This is an area of considerable potential, especially with the recent arrival of broadband mobile connections, albeit that a robust and uniform capture environment is required.

Figure 10: If you have staff who fill in or collect forms in the field, how are they generally dealt with?
Benefits of Distributed Capture

For the remainder of the survey, we sought to compare how cost savings and service levels might balance between centralized scanning operations and distributed ones. One obvious factor is that labor costs for centralized operations are likely to be cheaper, and 29% of our survey use outsourcing, largely to supplement in-house operations. Surprisingly, only 1% use offshoring to further reduce costs, although it is possible that their outsource contractors are doing so.

Handling logistics

There are a number of logistics processes involved in centralized scanning which add their own cost and speed penalties. We found that one-third of centralized scanning services take three days or more to turn documents around, and 14% take more than one week.

![Figure 11: For your existing centralized capture operation, how long would you say it takes from receipt of document to availability of processing?](image)

We were able to confirm our suspicions regarding the under-utilization of the scanning functions on MFPs in that 24% of departments admitted that they "always" or "mostly" photocopy documents and file the copies before sending them for centralized or outsourced scanning. This is an obvious incidence of double-handling in an understandable, but somewhat unnecessary way. As well as adding cost, it increases the risk of mishandling.

As regards the costs of shipping and storage, users of out-of-house capture felt that shipping costs made up about 9% of the overall costs, whereas users of distributed capture felt that they were saving about a third of general shipping and storage overheads.

Indexing

A frequently heard complaint about centralized scanning operations is that they are divorced from the business process itself, and therefore indexing quality can suffer. The view of our respondents who use centralized scanning was that local process-oriented staff could considerably improve the accuracy of indexing and metadata verification, and intriguingly, most felt that the staff would not object to doing it themselves.
Flexibility

We asked those respondents that have distributed capture for their view on a number of questions related to flexibility, costs and quality. Most agreed that they have been able to include more form types, and that end-to-end process times have improved. Only 22% indicated that their scanning costs have increased, with 42% indicating that they have achieved savings. Only 22% felt that indexing has not been improved.

Figure 13: Would you agree or disagree with the following statements about your distributed capture installation?
Levels of Spend

Despite the restrictions on IT spend throughout the economy at the time of preparing this report, plans for spending on both scanning hardware and capture software seem to be holding their own. There is an understandable decrease in planned spend on consultancy services and outsourcing as these are seen to be perhaps more discretionary, but they are also frequently billed on a per item basis, so reduced throughput might be anticipated. The difference in line lengths in Figure 14 indicates those companies that do not spend anything on this.

Figure 14: How do you think your organization’s spending in the next 12 months on each of the following will compare with what was actually spent in the last 12 months?

Conclusion

The results of this survey indicate that substantial process benefits will flow from an investment in scanning and capture. Savings in process time, staff costs and storage space mean that payback can be expected in 12 to 18 months. These projects are far more likely to meet or exceed expectations compared to other IT investments.

We can also conclude that, in most organizations, there are many more documents and forms that could be usefully scanned than are currently being scanned, and that one reason for this is the lack of available scanning platforms close to the process itself. Latest technology, such as distributed capture and intelligent document recognition, would also allow different form types to be more easily streamed. In addition, few enterprise applications are capture-enabled, despite there being a strong desire to integrate capture with process.

In most organizations departmental multi-function printers are underutilized for local scanning. On exploring the potential benefits of a distributed capture platform compared to centralized scanning, we found that the increased cost of the office staff carrying out local scanning would likely be offset by savings in storage, transport and photo-copying. In addition, there were considerable improvements in the turnaround time, an improvement in indexing accuracy, and greater flexibility of scanned document types.

Finally, over and above cost savings and productivity improvements, the strongest driver for increasing the number of documents and forms that are converted to electronic format was considered to be the improved access to information, creating a level playing field for paper and electronic documents both for knowledge worker access and for the increasingly important legal discovery process.

Standardizing business workflows around scanned documents and forms will also reduce errors and improve process compliance within a regulatory regime.
Survey Demographics

Survey background

The survey was taken by 677 individual members of the AIIM community between April 6th and April 30th 2009, using a Web-based tool. Invitations to take the survey were sent via e-mail to many thousands of individuals.

Survey demographics

Organizational size
Survey respondents represented organizations of all sizes. Larger organizations over 5,000 employees represented 28%, with mid-sized organizations of 500 to 5,000 employees at 42%. Small-to-mid sized - 10 to 500 employees - were 28%. Organizations with less than 10 employees were removed from the results.

Industry sector
Local and national government made up 24%, as did banking finance and insurance. The remaining sectors were evenly split. IT suppliers of ECM are removed from the results, and from the chart below. With these exclusions, the sample size was 477.

Geography
The United States and Canada made up the majority of respondents (88%).

Job function
43% Information or Records Management executive or staff, 32% IT executive or staff, 6% line of business or CEO.
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EMC Captiva

The EMC\textsuperscript{TM} Captiva\textsuperscript{TM} intelligent capture solution provides a comprehensive set of products for capturing information from paper, electronic files, and data sources. Captiva solutions support both centralized and distributed capture, transform these documents into digital images and business data, and deliver it to back-end repositories and business systems. By helping organizations reduce or completely eliminate manual data entry, Captiva drives significant cost savings, minimizes processing errors, improves data accuracy, and boosts productivity.

To learn more about EMC Captiva, please visit www.emc.com/captiva.

EMC Corporation, 176 South Street, Hopkinton MA 01748,
Phone: 800.222.3622 or 508.435.1000   Fax: 508.497.6904 Email:softwaresales@emc.com

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