

# Document Communications Industry Trends: 2005 Survey Results

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## I. Executive Summary

### Survey Snapshot

EDSF asked members and/or clients from the following organizations to participate:

- The Electronic Document Systems Foundation (EDSF)
- Xplor International
- The Association of Image and Information Management (AIIM)
- OutputLinks
- Doculabs

Note that for purposes of this paper, we are using the terms “digital” and “electronic” to refer to electronic delivery.

Consultants at Doculabs and faculty at the University of Illinois at Chicago collaborated with The Electronic Document Systems Foundation (EDSF) and conducted a study in the first quarter of 2005 to gain an in-depth understanding of key issues and trends in the document communications industry. This study focused on the buyers in the market and identified two primary themes in the response data. First, organizations are striving to improve the timeliness and personalization of paper-based communications while at the same time controlling costs. Second, organizations are successfully pursuing methods for digital document delivery, and their future expectations indicate a growing commitment to this form of communication.

These two themes ground the findings in this report, which include the following:

1. Budgets have increased moderately in 2005 and are likely to increase significantly due to postal rate increases in 2006. Print operations are likely to be under great scrutiny to reduce costs to offset this increase.
2. Timeliness, cost, and personalization of communications remain the top three concerns for buyers in the market. All three requirements lend support for the transition to digital delivery, as transit times can be cut from days to seconds, costs can be shaved from tens of cents to fractions of cents, and personalization continues to be limited only by the creativity of the hosting organization.
3. The use of color for transactional applications such as statements, bills, and correspondence remains limited to niche applications. While 88% of organizations use some form of digital color in their production, 47% reported that less than 1% of their volumes employ digital color.
4. Outsourcing of print operations has not grown, nor is it likely to grow until financial incentives become more significant. Due to the need for profit margins and because service taxes often apply, for-profit suppliers have not been able to use their economies of scale to provide sufficient cost savings to customers. However, expect further consolidation among the for-profit sector.
5. Approximately 75% of the firms surveyed expect growth in electronic document communications. Only 20% expect to maintain the same level of use.

The results of our 2005 survey suggest that the industry is struggling with the need to reduce paper-based communication costs, while at the same time funding an increase in electronic delivery.

6. Exclusive use of digital documents has reached a customer acceptance rate of 20%, with another 30% requiring both paper and electronic documents. Should this second group requiring both paper and electronic be convinced to accept just digital documents, electronic communications may someday become the dominant form of communications for transactional-type materials (statements, bills, etc).
7. Firms are employing a variety of digital communication methods, ranging from e-mail to portals and downloadable e-forms. Financial services and professional services firms are successfully balancing their selection of the appropriate communication methods with user preferences.
8. The further use of digital document delivery is being inhibited by several factors, including privacy, security, and regulatory concerns. User acceptance is also high on the list, as managing dual communication needs of paper and electronic delivery increases costs and introduces operational challenges.
9. Of the firms surveyed, 77% have no formal budget for electronic document delivery, and only 28% have a single point of management responsibility for their digital document delivery strategies.

Thus, we find the industry struggling with the need to reduce paper-based communication costs, while at the same time increasing investment to support electronic delivery. Taken together, these two dynamics are likely to increase overall communications cost in the short term, but over the long term, their effects remain unknown as organizations strive to find the appropriate balance between paper and electronic communications.

## II. Objectives and Methodology

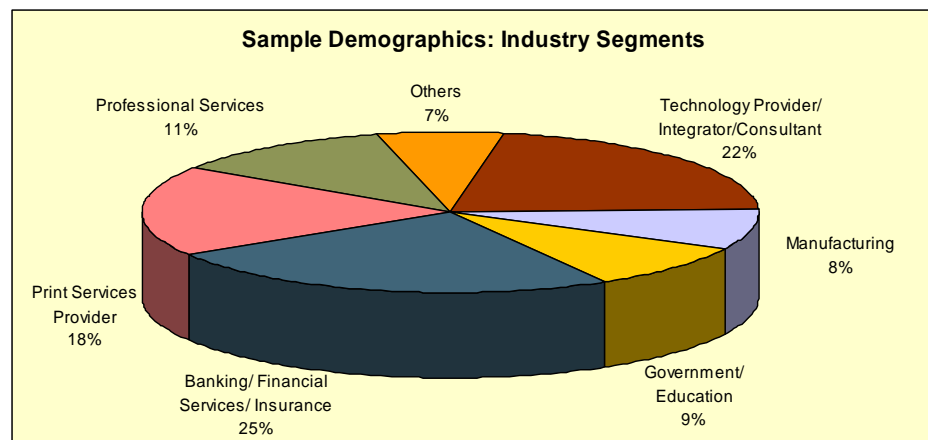
### Survey Participants

The survey is based on a total of 427 responses, representing the following industry segments:

- Banking, financial services, insurance
- Technology providers, integrators, consultants
- Print services providers
- Professional services
- Government and education
- Manufacturing

Members, customers, and/or subscribers of EDSF, Xplor International, AIIM, OutputLinks, and Doculabs were solicited for participation in this study via e-mail. Participants completed a survey on-line via Zoomerang. In appreciation of their time, respondents were offered a copy of this report and a subscription to the EDSF REPORT, a bimonthly research newsletter. Respondents were given the option of identifying themselves or remaining anonymous.

We received 427 responses, representing industry segments as indicated below (Figure 1).



*Figure 1 – Sample Demographics by Industry Segment*

## Industry Segments

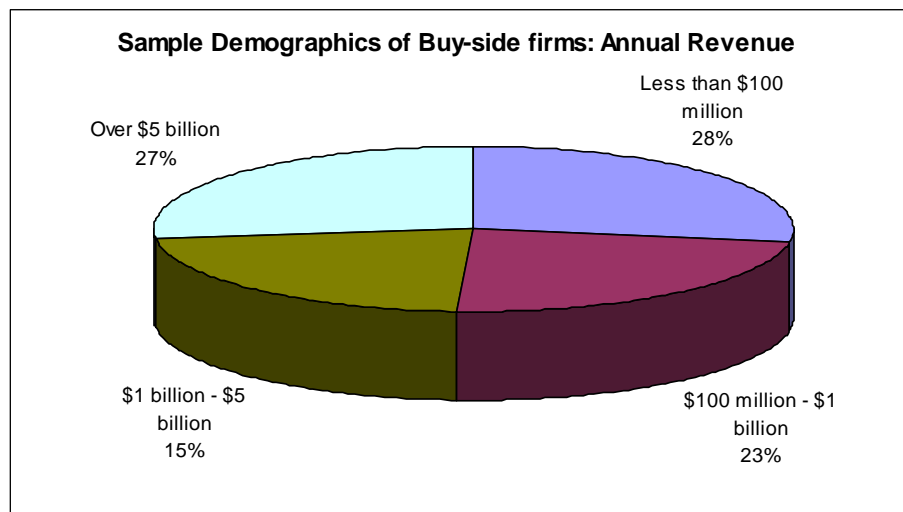
To better segment buyers and sellers that were involved in our survey, we grouped participants into:

- “Buy-side” – financial services, manufacturing, government, education, healthcare, professional services, and other industries
- “Sell-side” – technology providers, print services providers, and consultants

Note that the results presented in the analysis section represent only those opinions of the “buy-side”.

For purposes of data analysis, we further segmented the respondents by firm size and job title. We compared the responses from each of these segmentation variables, and, where appropriate, highlighted these factors in relation to the overall findings. In addition, we relied on the responses of “buy-side” participants (rather than “sell-side” participants) by aggregating the industry segments of Financial Services, Manufacturing, Government, Education, Professional Services (which included Retail, Healthcare, Telecommunications, and Utilities), and Others. Thus the results shown in the analysis that follows are based on the perspective of only “buyers” in the industry.

Our respondent firms represented a diverse range of revenues and resources (Figure 2). While 43% of the firms had annual revenues of less than \$100 million, 35% had revenues exceeding \$1 billion.

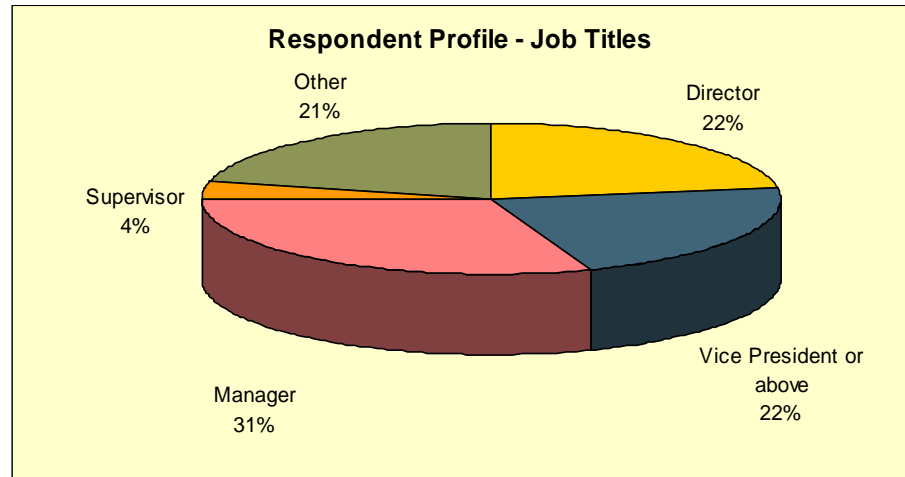


*Figure 2 – Sample Demographics by Annual Revenues*

The job titles of respondents to our survey also indicate that most respondents hold fairly senior positions in their respective firms (Figure 3).

## Respondent Profile

The job titles of respondents indicate that most hold fairly senior positions in their respective firms.



*Figure 3 – Sample Demographics by Respondent Job Titles*

In total, we asked three types of questions: four demographic questions, eight questions with “pick-from” options, and eight scale-type questions providing ranges of answers. The responses were analyzed using statistical techniques to ascertain reliability and validity. They were further aggregated and examined in depth to understand the results. Finally, the authors added their interpretation of the findings and implications, where appropriate.

### III. Findings and Analysis

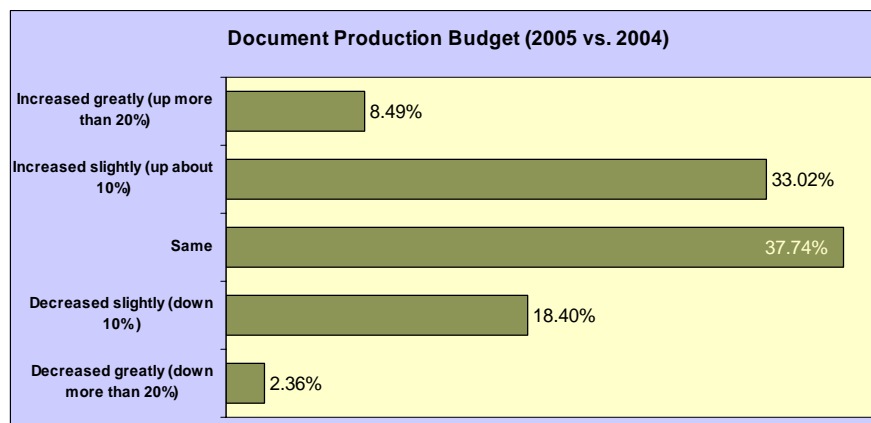
This section summarizes the findings and analysis of the study. Our findings are presented in nine subsections, representing our major conclusions from the study. Each subsection includes relevant statistics from the survey, and, where appropriate, analysis that represent the opinions of the authors and not necessarily those of EDSF or its sponsors.

The analysis is divided into two sections, driven by the dominant themes in the survey results. The first section reviews budgets and costs, with implications on color printing and outsourcing. The second section highlights the findings concerning digital document delivery, including user preferences, organizational ownership, and regulatory challenges.

#### ***Paper-based Document Communications: Budgets and Concerns***

##### ***(1) Budgets for Paper Document Production Increase Nominally in 2005***

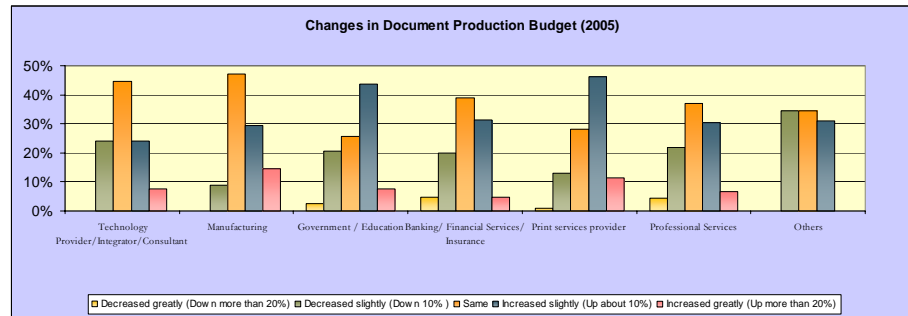
As shown in Figure 4 (below), approximately one-third of firms are likely to increase their paper document production budgets by approximately 10% in 2005, while nearly 38% will retain the same budget level as in 2005. Only 18% of firms expect to cut their paper document budgets.



***Figure 4 – Changes in Document Production Budget***

Firms are likely to be under intense pressure to find additional operational improvements in 2006 when postal rates increase. The firm that spends \$20 million annually on print and \$60 million in postage will need to cut \$3 million (15%) in operating expense within a single year.

Figure 5 (below) shows document production budgets by industry segment. Among those “buy-side” firms that are likely to increase their paper production budgets by more than 20%, manufacturing firms drive this increase in budget. More than 43% of respondents in the government and education sectors expect to increase their document production budgets by approximately 10%.



**Figure 5 – Changes in Document Production Budget by Industry**

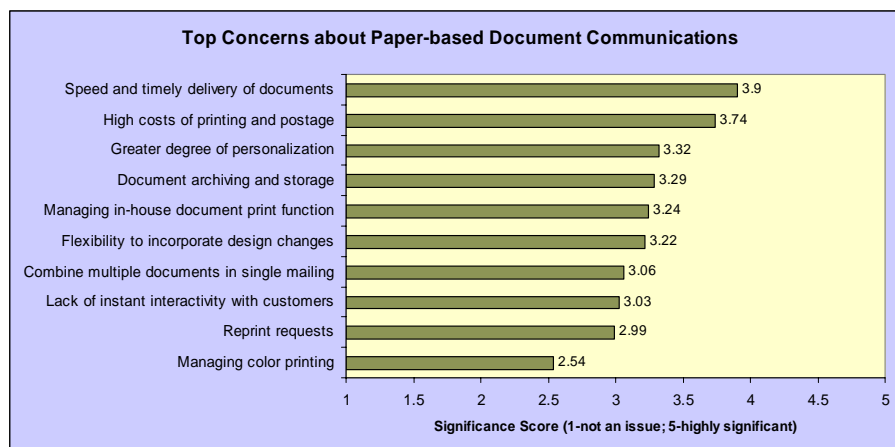
The results suggest several conclusions. First, organizations are either increasing the quantity or investing more in the type of document-based communications they use. While this may demonstrate the confidence organizations have in paper-based communications, if budgets continue to increase at a rate above a firm’s core growth rate, management scrutiny is certain to follow. While increased costs are not good news for the producers of documents, they do create an opportunity for suppliers that can find a means to alter factors of production that would ultimately reduce printing costs.

Second, organizations are likely to be under intense pressure to find additional operational improvements in 2006 when pending legislation projects postal rate increases of 5 to 6%. If, for example, a firm wants to hold its print and mail budget constant and has a simple 1 to 3 ratio between printing and mailing costs, printing expenses will need to drop 15%. Thus, the firm that spends \$20 million annually on print and \$60 million in postage will need to cut \$3 million in operating expense within a single year.

The timely delivery of customer communications and the high costs of printing and postage continue to be the most dominant concerns among the industry buyers. We suspect these trends are leading to increased interest in alternative digital delivery channels, such as the web, where documents can be personalized and delivered almost instantly and at a fraction of the cost compared to print and mail.

## (2) Timeliness, Cost, and Personalization Are the Top Concerns

The timely delivery of customer communications and the high costs of printing and postage continue to be the most dominant concerns among industry buyers. The need for personalized communication with customers emerged as another key concern. Finally, managing a large inhouse print function and the need to store and archive customer correspondence are also among the top five concerns in paper-based document management.



**Figure 6 – Top Concerns in Paper-based Document Communications: 2005**

The top concerns in 2005 largely mirror those we found in last year's survey (Figure 6). Functionally, the need for timely delivery of documents and improved personalization are probably driving up costs, as new tools and shorter turnaround times need to be incorporated into current production processes.

The result is that, seeing budgets rise, management is emphasizing cost control. Taken together, we suspect these trends are leading to increased interest in alternative digital delivery channels such as the web, where documents can be personalized and delivered almost instantly, at a fraction of the cost to print and mail.

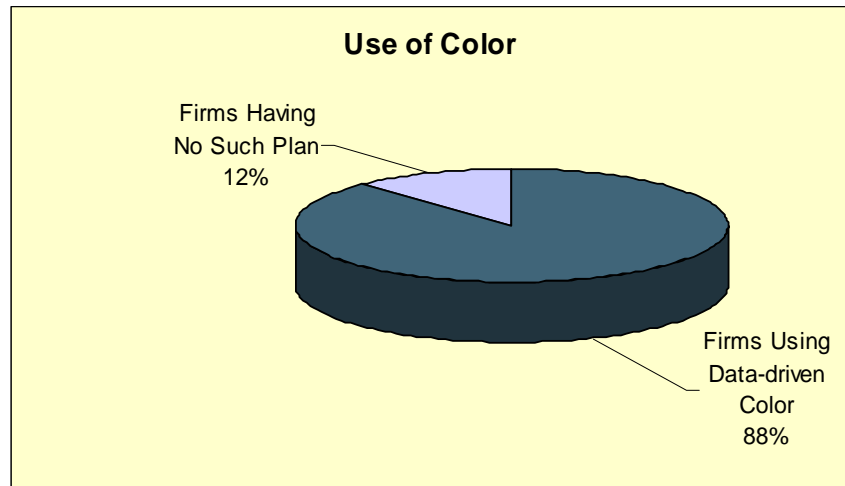
Finally, when we compare the budget findings with the top concerns highlighted in this section, one interesting subset of respondents stands out. Nearly 20% of survey respondents reported a budget decline. While this could be explained by an overall drop in these organizations' revenues or client bases, we suspect that some organizations in the market are focusing on and have been successful in reducing costs, perhaps with use of electronic delivery.

When considering the use of color, it is important to recognize the application focus of those individuals who responded to this survey. Most are likely to be involved in data center printing, often generating “transactional” materials such as statements, bills, explanations of benefits, etc.

### *(3) The Use of Color Remains Limited to Niche Applications*

The use of color in document communications has been highly debated in the industry for several years. Color, when used effectively, can be a powerful tool for communication. Apart from improving aesthetic appeal, other advantages include reduced errors in interpretation and increased comprehension. However, added cost is a major disadvantage.

Our survey reveals that more than 88% of firms use some form of digital color in their printed documents (Figure 7).

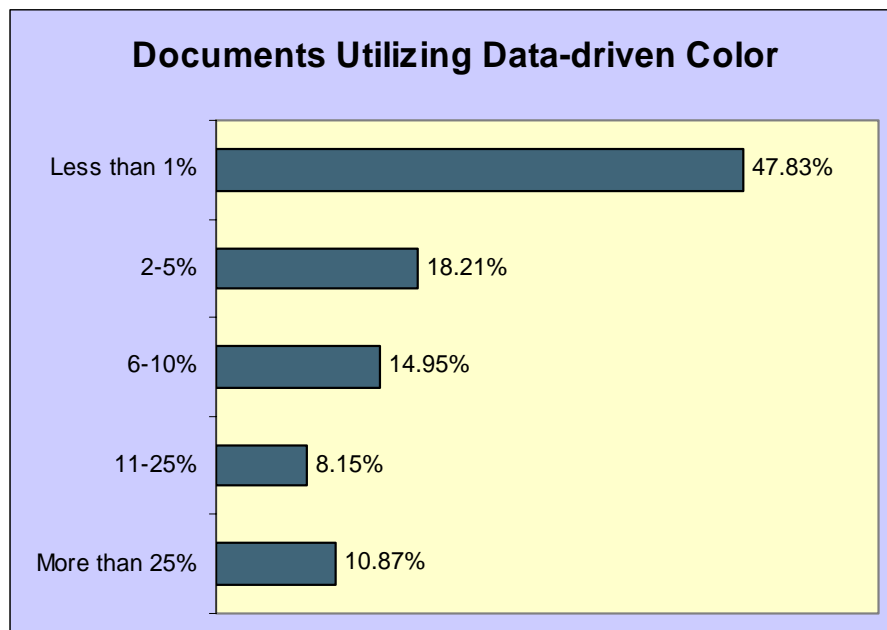


*Figure 7 – Use of Color Communications by Respondent Firms*

When considering the use of color, it is important to recognize the application focus of respondents to this survey. Most are likely to be involved in data center printing, often generating “transactional” materials such as statements, bills, and explanations of benefits. (Note that survey solicitations were sent to constituents of Doculabs, Xplor, OutputLinks, and EDSF, all of which tend to be focused on transactional print.) On the other hand, survey participants who represent their organizations’ marketing and print-on-demand activities may have a dramatically different interest in color than those focused on transactional print.

While our survey reveals that more than 88% of firms use some form of digital color in their printed documents, usage has been very limited, as more than 47% of firms use digitally generated color in less than 1% of the documents they produce and distribute.

In light of this important orientation among the survey participants, it might be misleading to conclude that color printing represents a significant portion of the documents produced. In fact, usage has been very limited, as more than 47% of the firms use digitally generated color in less than 1% of the documents they produce and distribute (Figure 8). Only 10% of firms use color in more than 25% of their documents. One of the reasons often cited, and supported by the results reported in the previous subsection, is the high cost of printing color documents.



*Figure 8 – Percentage of Firms Utilizing Data-driven Color*

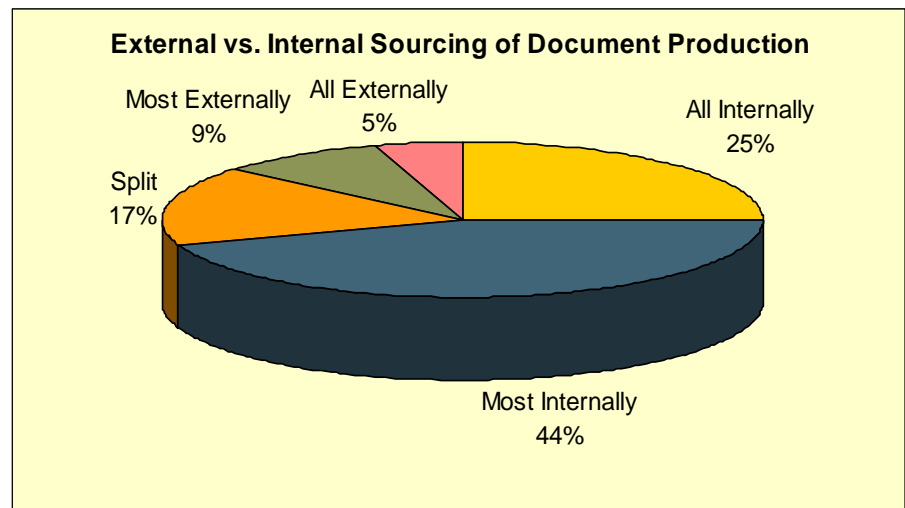
These findings confirm what many buyers in the industry have been saying for years: until color becomes perhaps just 5 to 15% more expensive than bi-tonal print, production-class transactional color print volumes will remain nominal.

Most print production is a structured process, one that is considered peripheral in many organizations' respective definitions of their core competencies. Given the increasing imperative toward outsourcing among U.S. businesses, one would expect firms to be actively outsourcing document production operations.

#### *(4) Outsourcing Has Not Grown*

Document production has several characteristics that make it attractive for outsourcing. Most print production is a structured process and in general is considered peripheral in many organizations' definitions of their respective core competencies. Moreover, it represents a significant expense and is a function that can be performed by a wide variety of external suppliers. Given the increasing imperative toward outsourcing among U.S. businesses, one would expect firms to be increasing their use of outsourcing for document production operations. However, our survey reveals a very different picture.

More than 69% of the respondents reported producing most of their documents internally (Figure 9). Only 14% rely on external third parties for all or most of their printing, while 17% utilize both internal and external sources for fulfilling their document production needs.



**Figure 9 – Percentages of Firms Outsourcing vs. Insourcing Document Production**

As in last year's survey, we find confirming evidence that within the mid-management level (which represented a majority of the survey respondents), outsourcing is regarded with skepticism. While this may not be consistent with the views held within the executive suite, industry pricing data suggests that the cost of outsourcing inhibits further market penetration.

We asked respondents to indicate their rationale for insourcing or outsourcing their document production function. Organizations that insource their document production indicated insourcing offered them a cost-effective and timely solution along with better control over the entire document production process (Figure 10).

No matter whether an organization produces internally or externally, timeliness and cost represent the two primary considerations in a decision to insource versus outsource document production.

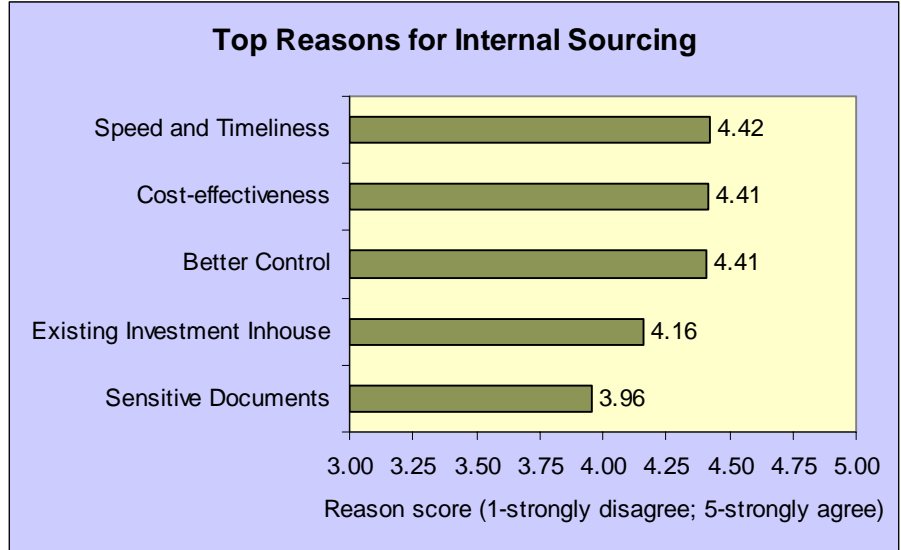


Figure 10 – Top Reasons for Internal Sourcing of Document Production

Among companies that use third-party vendors to fulfill document production needs, the speed and timeliness offered by external sources emerged as the top reasons for outsourcing (Figure 11). Cost-effectiveness also emerged as a strong driver of outsourcing document production. Thus, no matter whether an organization produces internally or externally, both speed / timeliness and cost represent the two primary considerations for insourcing versus outsourcing of document production.

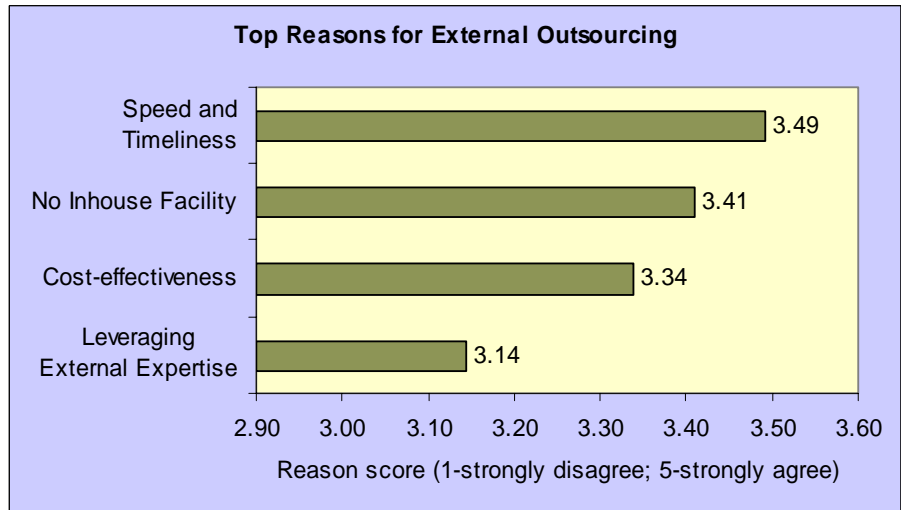


Figure 11 – Top Reasons for External Sourcing of Document Production

We do not expect to see significant increase in outsourcing, given the current lack of financial incentives. As a result, we expect further consolidation within the supplier community, as additional economies of scale are sought through larger revenue bases.

The market penetration data presented in Figure 11 (percentage insourced versus outsourced) show a tendency toward insourcing. So what specifically gives an insourced supplier an advantage regarding timeliness and cost? Both supplier bases have access to the same equipment and production speeds, and both are dependent upon the same USPS delivery times. Yet insourced providers can take advantage of dedicated capacity, ensuring that production windows are met consistently, while outsourcers typically have to juggle the work of many different clients, often at the same time (for example, quarter-end processing).

In terms of cost-effectiveness, insourced providers have the advantage of not having to make a profit (although this is arguable, as firms need to provide shareholders a return on any assets or capital deployed throughout the organization) and avoiding sales tax. Outsourcers often have an advantage driven by economies of scale. So which group of suppliers is cheaper? From reviewing numerous RFPs and conducting many benchmarking exercises, we conclude that insourced providers do offer marginally lower costs.

This observation has several implications. First, in light of the lack of financial incentives, we do not expect to see any significant increase in outsourcing. As a result, we expect further consolidation within the supplier community as additional economies of scale are sought through larger revenue bases. But will for-profit supplier consolidation and the resulting improvement in pricing due to economies of scale have an effect on decisions to outsource? Perhaps, and they may also explain why organizations of certain sizes are more likely to consider outsourcing, in light of the need for scale.

Data collected by Doculabs through numerous consulting engagements in support of this research effort identified three clusters of firms considering outsourcing print operations (see Table 1, below). The first cluster have operating expenses (excluding postage and materials) of less than \$10 million annually. Organizations of this size tend to already outsource or split their spending between internal and external suppliers. The third cluster consists of those with operating expenses greater than \$30 million, which typically achieve the necessary scale to remain cost neutral or advantaged, given no need for profit margin. The middle cluster, those with operating expenses between \$10 million and \$30 million, is the most interesting – which is where the decision to outsource becomes difficult. These are firms in which outsourcers may potentially be able to gain additional market penetration, as the suppliers' scale advantage may make the transition viable.

< \$10 million	\$10 million – \$30 million	> \$30 million
Outsourced or split	Insourced primarily, but under consideration	Insourced (except for the telecommunications industry)
Few economies of scale; difficult to re-invest in new capabilities	Competitively priced, but without sufficient advantage to generate the surplus to re-invest	Competitively priced, and sufficient surplus to fund continued re-investment

**Table 1 – Firms Considering Outsourcing Print Operations (by Operating Expenses)**

Our study suggests that, faced with increased costs and growing user acceptance, companies are devoting their resources to a new set of systems and capabilities that are aimed at building digital interaction with customers.

### Electronic Document Communications: Trends and Issues

The second theme of the study was the transition to electronic document delivery. We find that companies are acknowledging that digital delivery offers a cost-effective means that today is seen as complementary, but which may someday become a substitute for paper for certain types of documents. In light of this trend, the 2005 survey examined this dynamic.

#### (5) Electronic Document Communications Gaining Ground

Our study suggests that, faced with increased costs and growing user acceptance, companies are devoting their resources to a new set of systems and capabilities that are aimed at building digital interaction with customers. Our survey respondents consistently mentioned increased electronic document communications initiatives (Figure 12). This focus represents a fundamental shift from just a few years ago, when organizations made marginal use of e-mail or web-based utilities to interact with customers.

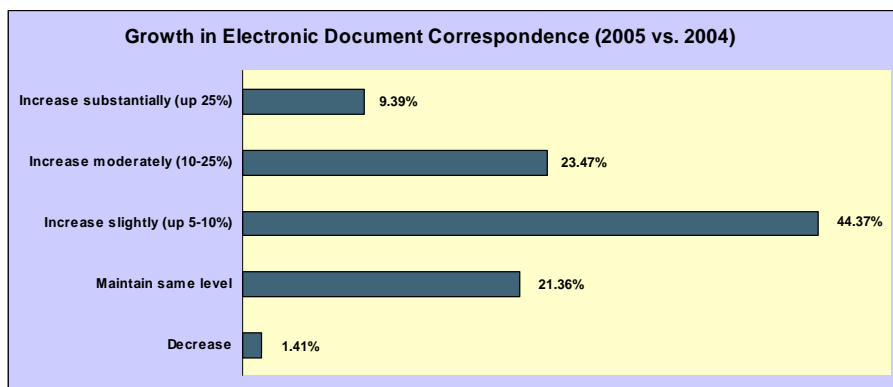


Figure 12 – Growth in Electronic Document Correspondence

The increased use of electronic document correspondence seems to be consistent across industries as more firms embrace digital solutions to contain costs and improve customer interaction capabilities (Figure 13).

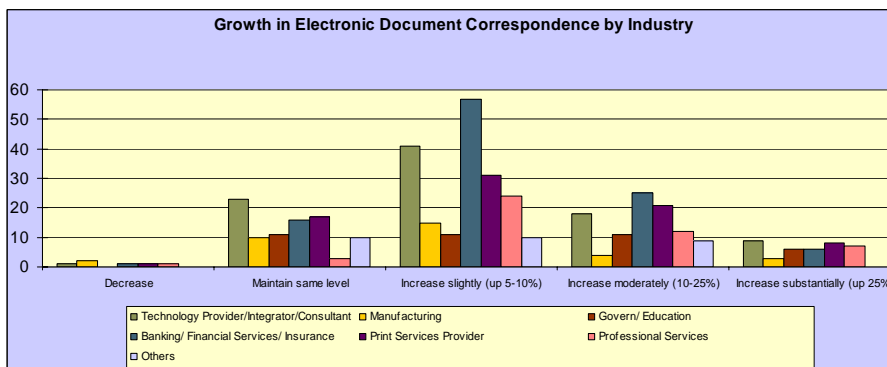
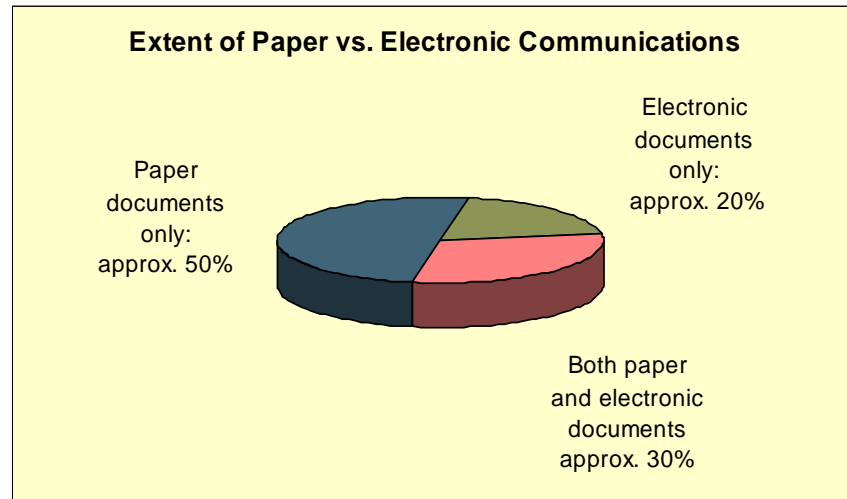


Figure 13 – Growth in Electronic Document Correspondence by Industry

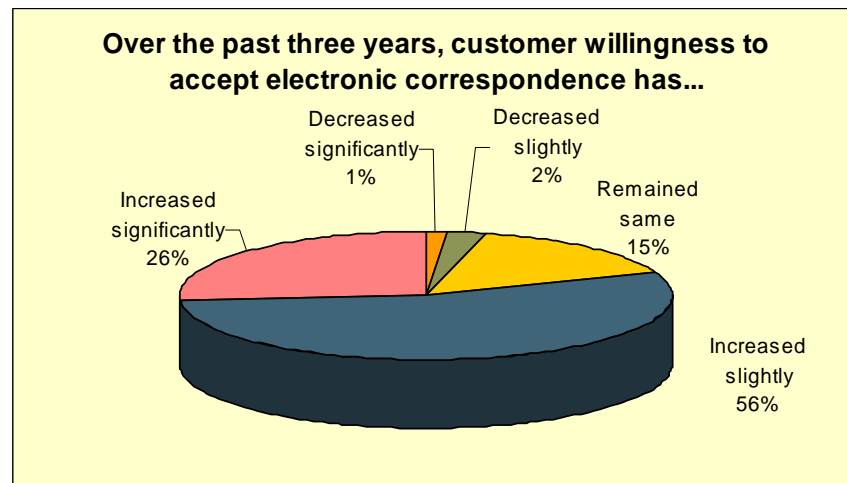
### (6) Customer Adoption and Acceptance Are Improving

Migration to digital document delivery and customer interaction is steadily gaining ground across all industries. More than ever, companies are encouraging their customers to go digital, resulting in a slow yet steady stream of customers opting for electronic correspondence only (Figure 14). Our respondents point to a significant portion of their customers who prefer to receive only electronic documents, while another 30% appear poised to consider making the transition to exclusively digital delivery.

Respondents point to a significant portion of their customers who prefer to receive only electronic documents, while another 30% appear poised to consider making the transition to digital delivery exclusively (those accepting both paper and electronic documents currently).



*Figure 14 – Extent of Paper vs. Electronic Communications*



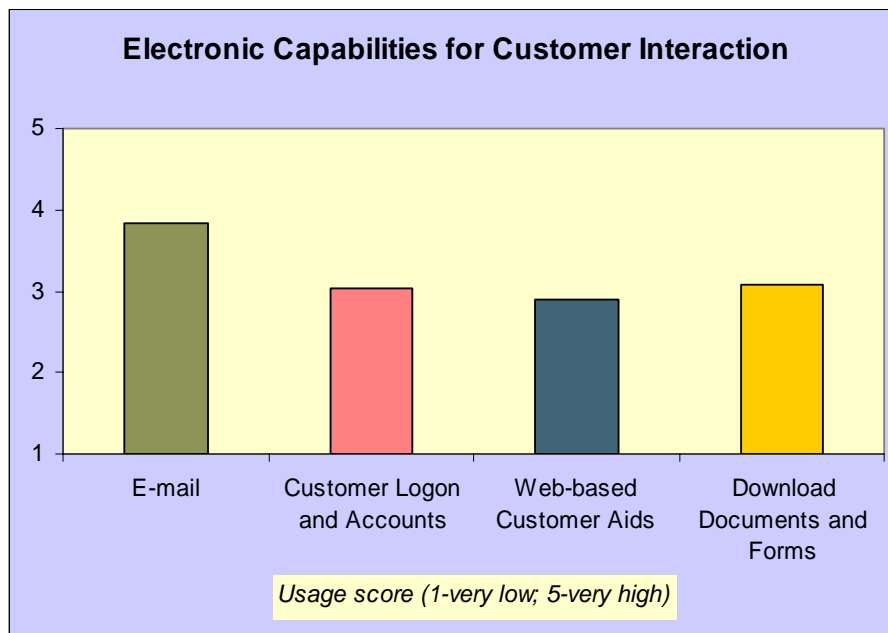
*Figure 15 – Growth in Customer Acceptance of Electronic Correspondence*

Finally, 82% of the organizations anticipate either a slight or significant increase in users' willingness to accept electronic modes of interaction and communications (Figure 15).

### (7) Balancing Multiple Methods of Digital Interaction

Survey participants indicated the electronic methods they use to interact with customers, such as e-mails, portal accounts, and web-based aids, as well as options for downloadable documents and forms (Figure 16). This is in contrast to earlier practices where e-mail was the dominant method for digital interactions.

Of particular interest is the recognition that each method is likely to have different purposes and different levels of effectiveness. E-mail may be an acceptable notification technique, while directing a customer to a web site provides superior navigation and personalization. Electronic forms, downloadable from a web site, assist with data collection and workflow.

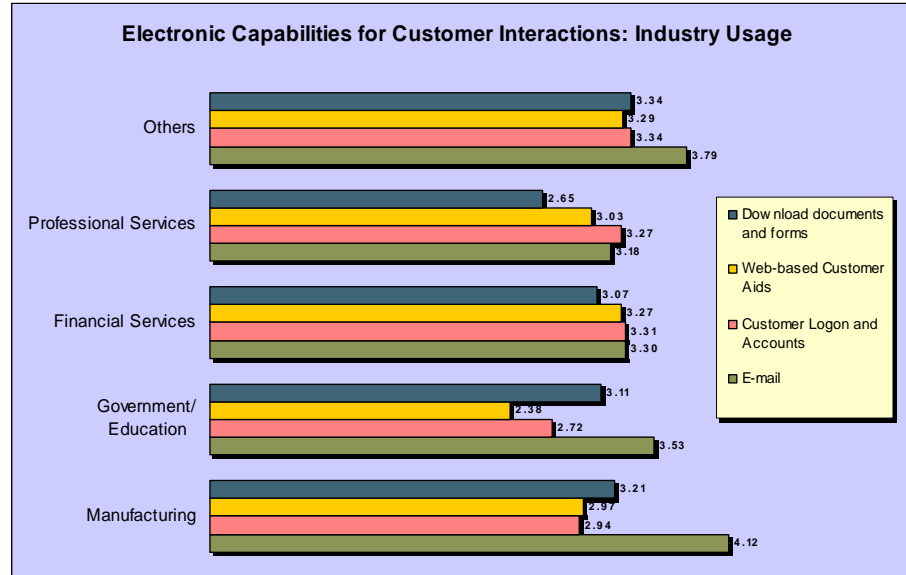


**Figure 16 – Electronic Capabilities for Customer Interaction**

Each method is likely to have different purposes and different levels of effectiveness. E-mail, for example, might be an acceptable notification technique, but less effective in communicating concepts and ideas. Alternatively, directing a customer to a web site provides superior navigation and personalization, but may be met with resistance if log-ons and configuration are complicated. Web-based aids can provide robust analytics for which there is no real equivalent with static, paper-based communications, but may raise concerns if personal information is required. Electronic forms, downloadable from a web site, assist with data collection and workflow, but can cause latency issues if they become outdated. These examples underscore the need for deeper understanding of communication methods and techniques for those seeking to leverage digital communications.

Industries seem to differ in the extent to which they use different digital methods to interact with customers (Figure 17). Financial firms tend to use all the capabilities almost equally; however, manufacturing, government, and education-related organizations tend to use e-mail more than the other modes.

Our results indicate that a balanced approach (across all of the digital interaction methods) may be important, as seen in the financial services and professional services industries. Perhaps organizations using multi-mode communications are finally beginning to understand the interdependencies with user preferences.



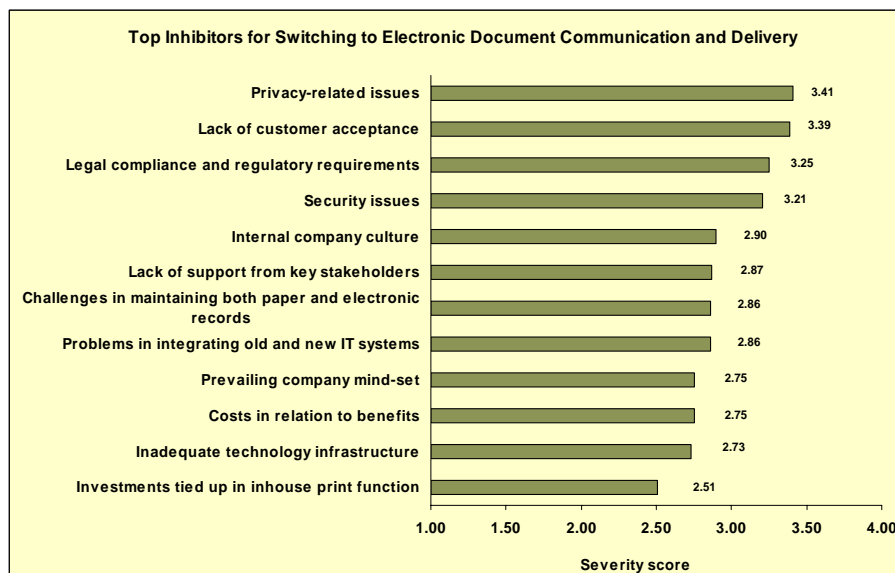
*Figure 17 – Industry Usage of Electronic Capabilities for Customer Interactions*

Our results indicate that a balanced approach (across all of the digital interaction methods) may be important, an approach taken by the financial services and professional services industries. Of particular note were the differences among the industries' use of e-mail, which customers increasingly regard as a nuisance when used for anything more than notification for opt-in by existing customers. The financial services industry, generally considered the most innovative in its adoption of digital communications, leverages all methods, rather than being overly reliant upon e-mail. Perhaps organizations using multiple modes of communications are finally beginning to understand the interdependencies with user preferences.

### (8) Key Inhibitors for Digital Migration

While both organizations and the customers they serve are demonstrating interest in electronic communications, several challenges continue to slow the transition.

Respondents cited privacy, security, and regulatory requirements as three of the top four factors inhibiting digital migration efforts.



**Figure 18 – Key Inhibitors for Digital Communication and Delivery**

Respondents cited privacy, security, and regulatory requirements as three of the top four factors inhibiting digital migration efforts (Figure 18). Not surprisingly, as customer information becomes easily available and portable, concerns about privacy and security have increased. Regulations such as the Health Insurance Portability and Accountability Act (HIPAA) are also limiting organizations' use of digital delivery. But laws are not the only challenge, as conservative interpretation in the formation of internal policies may further inhibit electronic adoption. Yet even in light of today's regulations, firms that work proactively to position themselves for electronic delivery might be advantaged. For many organizations, there is likely to be a lead-time of several years to build out the required infrastructure and gain user acceptance for digital delivery. Thus, for example, if regulations were to change in 2006, companies that are just beginning a foray into electronic delivery might enter 2008 before feeling any meaningful impact.

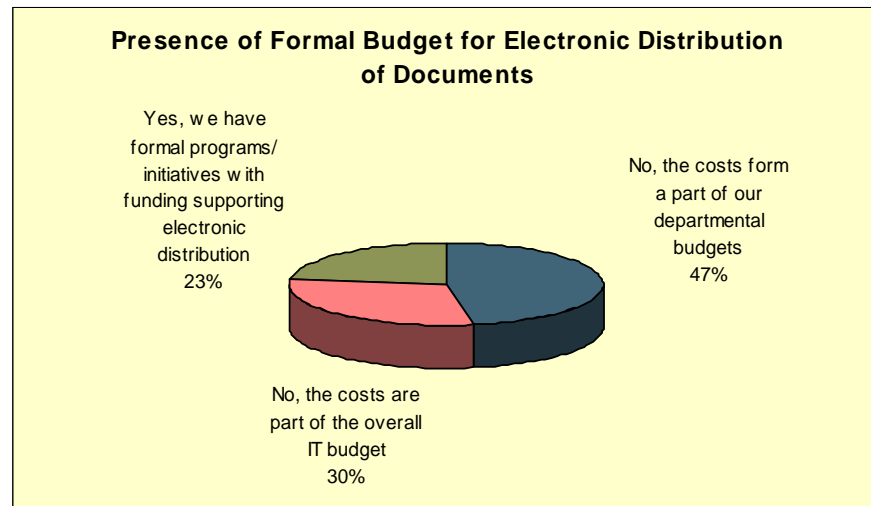
Among the factors inhibiting digital migration, user acceptance is also near the top of the list, which may be explained by the cost and complexity of maintaining multiple channels of customer communications. Despite increased acceptance of electronic methods, many customers insist on paper-based communications, and will continue to do so for the foreseeable future. As a result, organizations will find themselves struggling to manage the various consents of customers willing to accept electronic documents.

For example, a client in the financial services industry might have both a variable annuities contract and a 401(k) account from the same firm. The user will need to grant their service provider permission to suppress print and accept documentation electronically. Maintaining user profiles has operational concerns, as well. For example, users that have elected to suppress print must be “stripped out.” Additionally, if an e-mail transmission to notify the recipient “bounces,” the original document must be inserted back into the print stream.

#### *(9) Need for a More Formal Approach for Digital Migration*

Despite an increased interest in adopting electronic methods for document delivery, few firms have formal budgets or have assigned central responsibility for electronic document distribution.

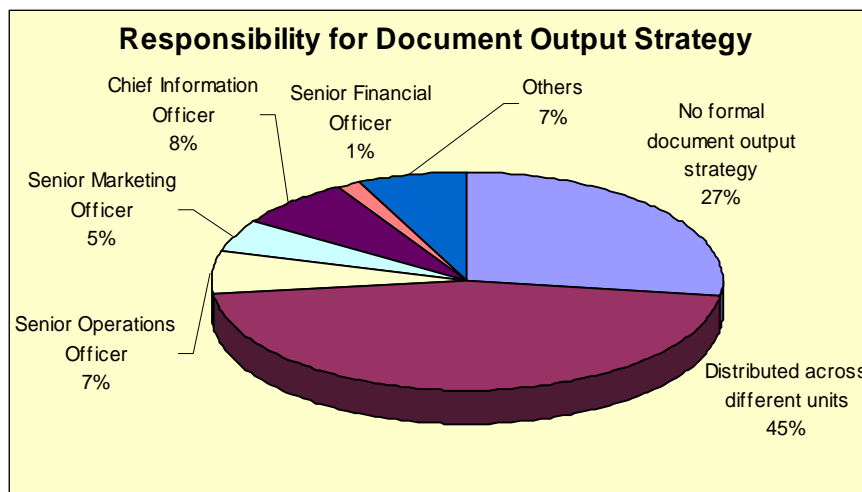
Despite an increased interest in adopting electronic methods for document delivery, few firms have formal budgets or assigned central responsibility for electronic document distribution. Less than one-fourth of survey participants have formal budgets for supporting digital initiatives (Figure 19). Approximately half (47%) rely on funding from other departmental budgets; approximately one-third (30%) have their costs included in overall information technology budgets.



**Figure 19 – Percentage of Firms with Formal Budget for Digital Document Distribution**

Moreover, responsibility for document production and output seems to be largely distributed across different departments for more than 45% of our respondents.

The data suggests that if an organization wants to increase its use of digital communications, both consolidating the budget and assigning central responsibility need to be achieved.



**Figure 20 – Responsibility for Document Output Strategy within Respondent Firms**

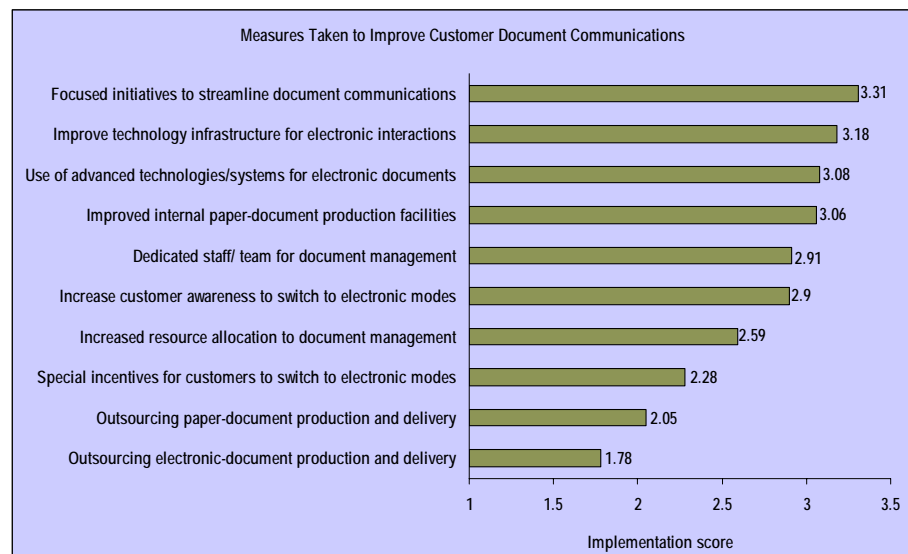
The data suggests that an organization that wants to increase its use of digital communications should consolidate the budget and assign central responsibility. Both should be achieved if an organization expects to be successful (Figure 20).

## IV. Summary: Document Communications Outlook

In the near term, companies must continue to fund both paper-based and electronic communication channels, resulting in a higher overall transaction cost. A dollar-for-dollar substitution of paper-based investments for digital-delivery investment is unlikely.

Over the next few years, the implications of a successful customer document communications strategy will be in flux. Customers have voracious appetites for service and their expectations will continue to change. Companies are making great strides in improving their document communications, but much more needs to be done. In the near term, companies will have to continue to fund both paper-based and electronic communications channels, resulting in a higher overall transaction cost. A dollar-for-dollar substitution of paper-based investments for digital-delivery investment is unlikely. Most companies will avoid large new investments in revamping inhouse document production infrastructures, opting to first improve customer-facing electronic delivery processes and systems.

As Figure 21 (below) indicates, the duality of paper and electronic communications is dominant. Initiatives to streamline processes and improve infrastructure will continue to challenge the leaders who make prioritization and investment decisions. Our findings concerning budgets and responsibility could have a dramatic effect on the success an organization achieves in managing the dual paper and electronic delivery channels.



**Figure 21 – Measures Firms Have Taken to Improve Customer Document Communications**

Consider the facts. Print budgets are constrained, but rising slowly. Digital delivery budgets barely exist; however, digital delivery efforts, as well as customer acceptance, are growing. We expect organizations to continue to pursue aggressive cost reduction in paper-based communications while growing their investments in digital communications – yet the timing of this transition remains unknown.

In the long term, the discussion of cost constraints and the relationship with the growth of digital delivery is an interesting dynamic. Are cost pressures exclusively pushing organizations toward a more aggressive use of digital document delivery? Clearly, other factors are involved, such as the need for an integrated, multi-channel customer service strategy or cross-sell and up-sell ambitions. Further, digital methods offer several superior capabilities for interaction with customers. Thus, the relationship between cost and digital delivery is difficult to measure and understand.

Consider the facts. Print budgets are constrained, but rising slowly. Digital delivery budgets barely exist; however, digital delivery efforts as well as customer acceptance are growing.

Clearly, the challenges in managing and integrating these delivery modes will continue to be a significant issue. As customers demand both paper-based and digital modes of document delivery, companies will face intense pressure to support and maintain both print and digital delivery operations. We expect organizations to continue to pursue aggressive cost reduction in paper-based communications, while growing their investments in digital communications – yet the timing of this transition remains unknown.

## **About the Electronic Document Systems Foundation (EDSF)**

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The Electronic Document Systems Foundation is (EDSF) is a worldwide, non-profit (501(c)(3)) organization dedicated to enhancing and promoting the value, significance, and relevance of document communications to organizations and society. We enable professionals and the public to learn about and derive benefit from paper, electronic, and digital documents, especially as documents are continually transformed by emerging technologies. The goal of EDSF is to be a catalyst for education and research initiatives and to bring the electronic document industry together to help resolve issues that impact society. EDSF is building a community of mutual interest and support for document communications.

The Foundation serves vendors and users who design and implement document solutions for business applications. The scope of these solutions includes the capture and creation of documents, the printing and viewing of documents, the transmission of documents for the purpose of communicating, and the management processes and services necessary for a complete document solution.

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