

for Affiliates this month in Center research:

Investing in Digital Color Printing

Printers and prepress firms have been hearing that the cost of owning digital color printing equipment is declining, but they need to understand that the business model reaches far beyond the cost of equipment and consumables. Not only do digital color printers need to purchase equipment, maintenance support and consumables, they also must build the right infrastructure to deliver value-added digital color services to their customers.

The Printing Industry Center at RIT surveyed 40 users of digital color technology to assess the real investment that was required to develop a successful business model. The 2003 report, entitled "Investing in Digital Color . . . The Bottom Line" (PICRM-2003-10), explains how a print services provider's level of investment is directly related to its target market and application mix. Four clear market segments and investment levels emerged from the research.

Figure 1: Market Segmentation Levels
click to view full size



Level 1: Quick Printing and In-Plant Printing

In the quick printing community, the acquisition of digital color equipment has centered on the fast delivery of colorful documents, with the primary customer base being the walk-in retail storefront. To support the primary application mix (business cards, stationery, short-run manuals, brochures), the majority of quick printers have digital color copiers that produce from 12 to 60 pages per minute and the associated RIP technology, but no substantial information technology (IT) staff support. Based on interviews with Sir Speedy, Kinko's, and Triangle Graphics, the average franchisee/local quick-print shop spends about \$0.10 on infrastructure for every dollar spent on digital color printing equipment.

While the franchise segment of the quick-printing industry continues to contract, it nevertheless generated total sales in 2002 of more than \$1.66 billion. The quick-print franchise corporate headquarters makes the infrastructure investment decisions that set the stage for what can be provided locally, and the franchisee generally cannot afford to evolve to a more

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service-centered digitally-enabled market model.

For companies with in-plant operations, the primary technology infrastructure emphasis is on file-transfer support for end users, digital color copiers, and RIP technology. With more than 10,000 in-plants in the U.S., the in-plant market typically invests approximately \$0.30 for every dollar spent on digital color equipment based on its need to serve a multiplicity of end users. However, in-plants are already starting the migration to higher-level production digital color, and will need to improve their infrastructure to support more advanced applications.

Level 2: Commercial Print

Traditional commercial print firms placed the initial focus for their digital color investment on short-run, quick-turnaround, on-demand jobs. Their emphasis was on delivering “virtual litho” quality with digital color technology.

These companies have added online access to marketing support materials, combined with document databases for repetitive print-on-demand capability. Their goal now is to become an integral part of the customer’s supply chain for marketing materials. The overriding value proposition for online print supply-chain management includes content currency, inventory management, timeliness, and reduced inventory obsolescence. For every dollar these printers spent on digital equipment, an incremental dollar was required for additional infrastructure, including software and staff support.

Level 3: Internet On-Demand Services

Internet on-demand services can be defined as web-to-print marketing systems that provide an easy-to-use browser interface. Customer service and marketing collateral can be customized to specific groups and then personalized with information provided in a database, creating one-to-one marketing pieces. The key components of these systems include:

- pre-designed marketing collateral templates
- pre-approved images and text files
- web development and hosting
- free-type text areas
- contact address book
- online document proofing and approval
- PDF-to-email and PDF-to-print output
- website administration tools
- content (image and text) management tools)
- usage reports.

Applications like these have demonstrated success in digital service providers such as RT Associates, with a 23% year-over-year growth rate, and Lexinet, who saw a 34% increase in revenues.

To support this level of application development, these firms invested heavily in infrastructure. Mimeo.com is a digital color organization with its document production facility in Memphis, adjacent to the runway of FedEx’s North American hub and the UPS shipping hub. Mimeo’s equipment investment was approximately \$2 million, and its infrastructure costs have exceeded \$6 million. In most instances, firms in this category spent a minimum of \$2 on technology infrastructure and support

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About the Center

Dedicated to the study of major business environment influences in the printing industry precipitated by new technologies and societal changes, the Printing Industry Center at RIT addresses the concerns of the printing industry through educational outreach and research initiatives.

Support for the Center comes from:

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VIGC
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Xerox Corporation

for every dollar they invested in digital color technology. And at least 10% of their employees have IT backgrounds.

Level 4: Fully Customized Communications

Service providers at this level support their clients' Customer Relationship Management (CRM) initiatives, and have leveraged digital technology to produce high-quality, variable data campaigns. They have the ability to build documents that include variable text, pictures, graphics, and barcodes, and to merge data. Using conditional logic, a dynamic document is created in which the entire layout varies with the input. The result is a document designed for the individual recipient. These firms can publish documents as printed pages, e-mails, web pages, PDF documents, SMS messages, XML files, or faxes.

As application complexity climbs, so does the cost of the implementation. Firms delivering applications at the highest levels of complexity, like Salt Lake City-based Rastar Digital Marketing and Royal Impressions of New York, indicated that for each dollar they spent on digital color equipment, they spent \$2.00 to \$3.50 to support the application. These firms have hired programmers and marketing specialists who can "talk the talk" of the corporate marketing executive.

Table 1: Annual Growth and Ratio of Investment of Selected Firms

Firm	2002 Growth	Ratio*
RT Associates	23%	3.5:1
Digital Marketing Inc.	30%	2:1
Lexinet	34%	2:1
Royal Impressions	41%	2:1
Mimeo	100%	3.5:1
PsPrint	50%	1:1

* Ratio of Technology Infrastructure Investment to Equipment Investment

Key Findings

Across all the firms we surveyed, for every dollar spent on digital printing equipment, an average of \$1 was also invested on infrastructure, including networking, software, server technology, and support. The fastest-growing establishments had the highest levels of investment in infrastructure. Another key finding was that IT is becoming critical to success. Firms that had implemented an Internet on-demand or fully customized communications model also employed the largest number of IT professionals. And third, the average digital color monthly print volume was significantly higher for those firms at market segment levels 3 or 4. Monthly impressions exceeded one million for those firms with a combination of good infrastructure and a solid base of IT professionals.

Help for the Print Services Provider

To make digital color profitable, the start-up print provider should assess the real level of its infrastructure investment only after the target market and application mix are clearly identified. Our

research confirmed that there is value in all four digital color business models. Print services providers can migrate up the value chain over time as part of their overall strategies, ultimately deriving greater revenue streams from more advanced services.

Higher revenue growth potential is linked to expanded service levels that integrate database supply-chain management, Internet customer-facing applications, and document customization. This requires support infrastructure and appropriate IT staffing. For the printer without a substantial infrastructure already in place, application-service-provider (ASP) solutions are offered by third-party entities that manage and distribute software-based services to customers across a wide area network from a central data center. These range from companies like TotalWorks and JG Sullivan to PrintCafe and Printable.

Success requires more than making color prints better, faster and cheaper. To help print services providers, equipment vendors need to stop discussing the cost per sheet and start talking about the pathway to profitability. They need to assist their customers with more advanced applications including ASP options that give printers the ability to “rent” infrastructure. And as part of the sales process, vendors must make sure that the digital color printer has a business plan that reflects the true costs of building a successful business.

The full report includes substantial case studies for five of the firms we interviewed: Great Lakes Companies of Cleveland, Ohio; Lexinet, Council Grove, Kansas; Mimeo, headquartered in New York City; PsPrint, which is split between California and the East Coast; and Sir Speedy, headquartered in Mission Viejo, California.

2003 Research Monographs:

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