Digital Color—Where is the Market?

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A Research Monograph of the Printing Industry Center at RIT
September 2002
No. PICRM-2002-02
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Rochester, NY
September 2002
The research agenda of the Printing Industry Center at RIT and the publication of research findings are supported by the following organizations:

Rochester Institute of Technology
Alfred P. Sloan Foundation
Adobe Systems Incorporated
Baldwin Technology Company, Inc.
Creo Inc.
RR Donnelley
Heidelberg
hp indigo
IBM Printing Systems
Kodak Polychrome Graphics
MAN Roland Inc.
MeadWestvaco Corporation
NexPress Solutions LLC
NPES
VIGC
Weyerhaeuser
Xeikon America Inc.
Xerox Corporation
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Digital color was introduced in the marketplace almost a decade ago. Both Indigo and Xeikon introduced key new products, and early projections were that these technologies would take off. Initially, as with a number of new technologies, there were technical issues. Presses were unreliable; ink and toner didn’t stick to the paper; and the cost of consumables was too high to generate any substantial application transfer from offset technology.

Today, Indigo has been taken over by HP. Xeikon faced bankruptcy and was acquired by Punch Technologies. And we are seeing the emergence of new suppliers for production color: Xerox with the iGen3, and NexPress. Ink and toner are sticking to the paper. The quality of the output is substantially better. Consumables costs are down and reliability has improved dramatically. There are a number of application software solutions to support the implementation of one-to-one marketing applications.

The key questions everyone is asking are:

- Where is the demand for short-run digital color and variable data?
- Is there really a market?
- What will it take to accelerate application growth and drive volume to these digital color presses?

The premise for this report is that much can be learned about the future from lessons of the past. The research efforts started by digging into the archives and pulling out press releases from vendors on early market successes between 1994 and 1999. The analysis was designed to see if these early adopters returned to their traditional offset printing business models, if they ultimately took such a financial hit that they had to shut their doors, or if they stayed the course and established a successful digital color business. Understanding what print providers who are leveraging digital color today did to differentiate themselves is critical to the next wave of digital color technologies.

Searching the old press clippings, 149 early adopters were identified. Of these, 44 firms (23%) refused to complete the survey or were unable to find a time convenient for the interview. 66 firms (44%) completed the survey. 49 firms were either out of business or had been acquired by another firm.

Figure 1: Early Adopters Survey
THOSE WHO “SHUT THE DOOR”

There were some highly visible early adopters who made major investments in digital color as well as some smaller commercial printers, trade shops, and prepress establishments that over-invested and either were acquired or are no longer in business. Of the 149 companies that we identified, 32 percent (or 49 locations) were either “out of business” or had been acquired. Of 66 respondents still in business, 21 percent (or 14 locations) had removed the equipment.

One of the largest and most visible of the digital color early adopters was Uarco. In 1996, Uarco made a $40 million capital investment in digital technologies to establish a network of printing and distribution centers called Impressions. The stated strategy was to become the Kinko’s for the Fortune 500 and offer traditional long-run offset combined with short-run printing, warehousing, distribution, and sophisticated prepress. The Impressions Centers were equipped with 20 Xerox DocuTechs, 20 IBM 3170 digital color presses, ten Heidelberg Quickmaster DIs, and Canon Color Copiers. The Uarco scenario was one of significant over-investment in technology before the company had the sales infrastructure, target markets, and applications adequately developed to deliver on their vision. Ultimately, the company was acquired by Standard Register and integrated into their Stanfast Centers with a limited subset of the initial digital color technology in place today. As the Standard Register acquisition was finalized, Tim Webb, former Uarco CEO is quoted as saying, “One of the things we’ve learned is that the solution to our customers’ problems isn’t necessarily digital color printing as much as it’s the combination of all the resources we bring to bear.”

In 1995, RR Donnelley built a plant in Memphis, right next to Federal Express, to support their variable-data color strategy for direct mail and market support materials. The site was equipped with Xeikon technology and located near overnight shipping facilities for convenience in delivering printed materials. In 1997, they shut the door on the Memphis plant. The rationale for the plant closure was that the target market (sales support literature and marketing materials for corporate clients) required more than digital printing. It required a combination of print technologies, including traditional offset. Customers wanted a blend of preprinted material and custom printing, and Memphis had not been equipped to handle conventional print. Standard Register acquired portions of the assets, and some were relocated to other RR Donnelley sites. At that time, Lewis Waltman, then director of the digital division, was quoted as saying, “As many of our customers move from mass marketing to mass customization, they require that digital printing be mainstreamed into our full-service operations. It made good business sense to integrate this capability rather than maintaining it as a standalone operation.”

A number of smaller firms quietly disinvested in the technology or were simply forced out of business. L.P. Thebault established a separate division for digital color. They had early success with a well-publicized campaign for Buick and set up a team of digital specialists to replicate the success with major accounts. According to Mark Hausser, former L.P. Thebault national account sales executive and current president of Cirqit.com, “The cost per piece was too high. For several of the applications, a better answer was offset shells and digital black-and-white variable data.” The application software L.P. Thebault was using had significant value, and ultimately a group of investors provided
$25 million in funding for the formation of Cirqit.com. Cirqit leverages the software to provide e-procurement solutions to Fortune 500 corporations and vends printing out to a number of different companies. Today when you log on to L.P. Thebault’s web site, you will see that they returned to their core business focus of full-color offset printing, leveraging six- and eight-color Heidelberg Speedmasters. There is no reference to the multiple Agfa ChromaPress devices once installed there.

In analyzing what went wrong, the reasons for failure were not complex. The casualties were typically linked to basic business fundamentals.

- **No well-constructed business plan that supported the level of investment.** With the market frenzy surrounding digital color, some print providers viewed the opportunity as a “field of dreams.” Invite advertisers, direct mailers, and marketers, and they will come. These firms didn’t develop a basic business plan that included an identified target market and an implementation plan including sales, service, and support that would yield profitability.

- **Technology disappointment.** Some users developed business plans and began effective implementation only to be challenged by the technology. They had customers who were willing to engage in digital color on demand for marketing materials and variable-data campaigns. Once they had sold the services, however, the print providers faced equipment reliability issues. When the print providers failed to meet delivery commitments, the user base refused to give the technology a second chance.

- **Start-ups with no customer base.** Some early investors were start-ups that had decided to build a new business around the developing digital color market. These companies had a business plan and a clear identification of target markets, but they did not have a reputation with a client base. These firms typically did not have the financial resources to survive, because they couldn’t develop the market quickly enough.

- **Not realizing that full service is critical.** Some initial users attempted to set up separate businesses and segment the digital color operation. Depending on the target market, customers are not just looking for “digital color printing.” They are looking for a service provider who can offer a full compliment of printing and cross-media requirements. That doesn’t necessarily mean that the organization providing digital color needs to be able to deliver all services internally, but they do need to develop appropriate alliances for full service, from prepress to fulfillment and distribution.

- **The issue of price versus value for the print buyer.** In several instances, print buyers saw the value of customized personalized materials, but these individuals were not willing to pay the price to use digital color technology to deliver that message. They felt that other technologies could deliver the same marketing return on investment without the associated cost. Several marketing executives deemed an offset-printed shell with variable black-and-white printing more than adequate for message delivery.
THOSE WHO “STAYED THE COURSE”

Of the firms still in business, 82 percent indicated that digital color was meeting their business expectations, while 18 percent were dissatisfied with their overall business results.

The general characteristics (mean distribution) of the companies that “stayed the course” included:

- Being in business for 20 years
- Having an average of 42 employees
- Owning the press for six years
- Having sales in excess of $3 million annually
- Showing annual growth in excess of ten percent.

Because the Printing Industry Center at RIT talked with the digital color users as well as conducted site visits to develop case histories, significant insight was gained relative to the meaning of these specific statistics.

Keys to success included:

- **An established customer base.** Regardless of whether the successful firm had its genesis in the prepress market, commercial print, or the in-plant, it had a customer base that could buy the extended digital color service offerings. The Ace Group, RT Associates Inc., and Tukaiz all started in prepress services. They added digital color to augment their business, realizing that changing their business model would be essential to long-term viability. Commercial printers like Unique Printing, LaVigne Press, and Banta complemented their existing offerings by blending in digital color and variable data. While early installations in in-plant print environments were less pervasive, it was a natural for Ace Hardware, as they supported their franchise network with versioned materials.

- **Financial resources to stay the course.** The majority of early digital color adopters who stayed the course were not dependent on digital color as their sole source of revenue. They had other major business components that subsidized their digital color investment. These companies had the financial resources to withstand the early equipment reliability issues and the patience to develop the market. Companies like K/P Corporation, Unique Printers, The Jerome Group, and Banta knew that digital color would, over time, contribute to their business model, but they also realized that the payback would not be immediate. For those firms that maintained their digital color investment, the mean number of years of ownership is 5.4 years with a median of 6 years.

Figure 2: Those Who Stayed the Course

Figure 3: Years Owned Digital Press
• **Staff to deliver results.** The average size of the firms that have grown their digital color businesses was 42 employees. They had adequate technical, management, and sales skills to deploy against a new business model. In most instances, resources were dedicated to making digital color work. Sales specialists were assigned to support clients on digital color applications; prepress staff learned the new technology and techniques for insuring high-quality image production on the digital color devices; technical skills were developed to accept electronic files; and management was committed to build the business.

• **Leveraging the digital color investment to expand cross-media services.** The commitment to “stay the course” has served early adopters well. Even in the most difficult of economic times, these early adopters are growing their businesses. The average revenues of the 50 firms that completed surveys were up 10 percent. According to the PIA Economic and Print Market Outlook, 2002 U.S. print sales should equal around $166 billion, up 4.5 percent over 2001 levels. The early adopters both invested in digital color and reinvented their businesses around cross-media solutions. Digital color was one of the initial steps in making that transition. The Printing Industry Center at RIT looked at three early digital color adopters that grew substantially faster than the industry and analyzed the ways in which they leveraged a full-solution suite to grow their businesses. While it started with digital color printing, the result was the identification of new customers and the expansion of relationships with current customers, which, in turn, resulted in increased sales and improved profitability.

**MAKING THE DIGITAL TRANSITION: BANTA, RASTAR DIGITAL MEDIA, INC. & ART SMART DIGITAL**

**Banta—Seven Percent Increase in Net Earnings in the Second Quarter of 2002**

In 1994, Banta established a vision for the future. They embarked on a strategy focused on becoming the “recognized global leader in capturing, managing, and distributing customer information.” According to Dennis Meyer, vice president of marketing and planning, Banta analyzed its customer base and defined the services that were critical to addressing the future needs of key accounts. Banta’s primary market segments include catalog publishers, special-interest publications, direct mailers, and the book market. In all instances, the message from the customer base was clear: digital color. In response to this call from its customers, Banta was an early adopter of digital color, investing Xeikon technology. In parallel with making this decision, they also established a business strategy that would migrate the company’s capabilities to a multi-channel information distribution supplier.

Banta seized the digital opportunity and began making investments in key information technology infrastructure solutions that would ensure their capabilities in a multi-media world. In 1995, they acquired New Frontiers Information Corporation, a company founded by four Massachusetts Institute of Technology computer science graduate students with the goal of building a new generation of database-driven web sites and e-commerce solutions. This formed the core of what is now called the Banta Integrated Media Division.

Along with the other divisions of Banta Corporation, Banta Integrated Media assists clients in the creation, capture, management, publishing, and distribution of information. They provide tools for multi-media publishing and cataloging as well as data-base and content management. They also help customers become successful through strategy development and execution. They have blended their variable-
data print capability with content management so they can produce customized personalized print and electronic communications.

From Nine West to J.J. Keller, Banta is delivering solutions that support their customers’ need to communicate across multiple forms of media. The results for Banta are clear. The delivery of new media solutions positively impacts customer relationships while building additional revenue streams. That means improved share of customer and better profitability.

Rastar Digital Media Inc.—From Prepress to Multi-Channel Marketing Solutions

In 1992, Kevin Despain, president of Rastar Digital Media, had a vision to create a unique business within the graphic communications industry. He founded Rastar Color, Inc. in Salt Lake City, Utah, focusing on high-impact color for print advertising using leading-edge desktop technologies. In 1998, Rastar purchased InterWest Graphics, its largest competitor. The impetus for this merger was the desire to be more competitive on both regional and national levels. The creation of this new, stronger company brought significant resources to their customers, and they became the largest digital service provider to the graphic arts in an eight-state area.

According to Despain, “The key to fulfilling our vision of becoming a full-service digital communications company begins with our ability to look out over the landscape of our industry to find unique opportunities that our technical abilities will allow us to exploit, while at the same time looking over the horizon for the next wave of technology.” For example, in 1995 they invested in the first generation of color digital printing presses. Few companies at the time possessed the means necessary to operate this highly technical equipment. Traditional printers had little digital infrastructure and lacked qualified personnel. Rastar’s commitment to this technology and the experience gained from it has positioned the company for the delivery, both in print and via the Internet, of a range of customized and personalized applications.

Although it started as a digital prepress specialist, the 100-employee Rastar Digital Media has transformed itself into a sophisticated multimedia database marketing company. Their services have expanded to full-fledged target marketing capabilities, including data mining.

“We can put together an entire solution, from strategy through creative content and messaging development, that’s combined with and driven by customer databases,” he says. “We’ve built our own CRM database tool, so we drive one-to-one communications out of that process through print. We also have a dynamic e-mail equivalent that drives people from print to the Web, so we’re multi-channeled in terms of our deliverables. And we fulfill everything, all the way through presort mail, inserting and postage.”

For the Toyota Motor Sales Corporation, which includes both the Toyota and Lexus product lines, Rastar developed a CRM strategy. The objective was to improve customer retention and drive additional service into the dozen or so dealerships that participated in the two-year pilot. Targeted offers were created for specific customers based on their circumstances or transactional histories. Follow-on mailings were then differentiated further based on customer response, or lack of it.

“Even when they don’t respond, they’re actually communicating the fact that they don’t want to talk to you,” Despain notes. “By changing the intelligence in the letter, we’ve been able to get even hard-core inactive customers to respond because we are speaking to them intelligently. The process becomes increasingly intelligent over time, depending on the person’s feedback or interaction with a particular dealer. And we’ve created a massive amount of content based on different scenarios, so that each customer gets the appropriate message.”

Not only does Rastar develop the custom communication program that combines intelligent print, e-mail, and voice, but they also track results. They ensure that every customer understands the return on investment generated by the campaign.

Market Research Results
The company’s leadership in providing full-service digital communication solutions has also led to the development of similar programs for a variety of other businesses. O.C. Tanner uses Rastar to support customized employee recognition programs for long service gifts, sales recognition, etc. This application results in the creation of between 25,000 and 60,000 unique variable-data pages a day. Despain explained that his traditional prepress services supported the investment in the migration to digital multi-media services and creation of the database infrastructure. The multi-channel marketing solutions are creating tremendous growth for Rastar with revenues up more than 40 percent this year.

Art Smart Digital—Patenting Success

In May 2000, Art Smart Digital opened its doors in Mississauga, Ontario. Owners Ben Steinberg and Rick Dalmus had experience in the digital print market. They also had strong prepress and design skills and through start-up government funding invested in an Indigo Digital Color Press. Art Smart has combined the Indigo with a Heidelberg QuickMaster DI to expand service levels as well as print offset shells leveraging the Indigo variable-data capability. They have had success with doing a wide range of digital color work, including benefit statements, phone cards, posters, wedding invitations, advertising, and direct mailers.

Most recently, they built an alliance with GiveAnything.com, founded in 1999 with the concept of providing a truly universal gift solution. The idea was simple: gift certificates are great. But a gift certificate that could be spent at lots of different stores would be even better!

From humble beginnings, when GiveAnything.com Gift Certificates were accepted at only a few dozen web sites, they have grown to become the a premier Internet gift giving and corporate reward resource with a universal gift certificate that can be spent at hundreds of your favorite online stores, national retailers, restaurants, and even movie theaters.

GiveAnything.com is collaborating on campaigns with Art Smart Digital, handling the electronic catalog and electronic information gathering as well as accumulation and transmission of the data to Art Smart. Art Smart takes that information and produces a custom greeting card that can have special messaging or support a corporate incentive campaign, using variable images and content, and handles shipping and fulfillment. Both companies have patented the process.

The focus of the gift solution is the corporate market. Large companies are using cards to send Christmas gifts to employees with variable messaging. Some companies want to use the cards to thank employees for a job well done. Other firms want to send valued customers a special gift incentive.

Art Smart identified a collaboration opportunity to participate in the world of integrated multi-media campaign management. The application results in an ongoing repetitive program for Art Smart that is yielding long-term revenue potential.

The bottom line is 300 percent revenue growth this year for Art Smart Digital.
BUSINESS JUDGEMENT?
Regardless of the level of success experienced by the specific digital print service provider, the business rationale for purchasing was typically not based on a solid business plan that included identification of target markets, applications, technology infrastructure, and a financial analysis. The primary reason that most firms made the decision to purchase was managerial instinct. Especially for the early adopters, no one had a clear picture of how the market would develop. In most instances, the owner/operator was caught up in the market excitement about digital color and wanted to get in on the leading edge. They believed the market hype and saw digital color as the next frontier in the printing industry.

<table>
<thead>
<tr>
<th>Reason For Purchase of Digital Production Printing</th>
<th>Percent of Cases (n = 33)</th>
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<tbody>
<tr>
<td>Managerial instinct</td>
<td>61%</td>
</tr>
<tr>
<td>Stated customer need</td>
<td>21%</td>
</tr>
<tr>
<td>Hoped-for new customers</td>
<td>18%</td>
</tr>
<tr>
<td>Anticipated future customer need</td>
<td>15%</td>
</tr>
<tr>
<td>Replacement technology</td>
<td>12%</td>
</tr>
<tr>
<td>Competition</td>
<td>12%</td>
</tr>
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ADDITIONAL INVESTMENT

Print Technology
While the market developed more slowly than firms anticipated, 70 percent of the satisfied digital color users invested in additional digital color solutions. These firms have long since upgraded existing base equipment models, and they also have expanded their product portfolio. For example:

- Rastar Digital Media added more Indigo devices.
- RT Associates added a NexPress 2100 to their current Agfa Chromapress configuration. They have also incorporated a Heidelberg QuickMaster DI and a Speedmaster 74 DI.
- The Ace Group added Indigo devices.
- Spire (formerly Graphics Express) included a NexPress in their initial digital color configuration as well as traditional offset.
- Art Smart Digital introduced a Heidelberg QuickMaster DI to their mix of equipment.
- Cohber Press blended a NexPress 2100 and Heidelberg 9110 with their traditional offset operations. They previously had a Xerox DocuColor 70 and DocuTech equipment.

The majority of the firms discovered that full-service printing meant more than just digital color. If the firm started out as strictly a digital color service provider they added digital black-and-white and offset capability or established an alliance network to become a full-service provider. Most of these organizations quickly discovered the full service meant more than just printing, as well.

But There’s More
As the Printing Industry Center at RIT examined the business models of the early adopters, the definition of full service expanded significantly. The key components of full service for the organizations surveyed were extremely far-reaching. Offerings included:

- Creative services
- Digital photography
- Digital imaging (color retouching and correction)
- Color separations
- Interactive multi-media
- 3D modeling and animation
- Content management
- Digital asset management
No single provider was delivering the entire menu of offerings, but all of the providers continually worked with customers to maximize the number of services that they were delivering. In many instances, the digital printer could not provide a complete solution. These service providers managed the account relationship and identified partners who could meet customer needs. The Ace Group, for example, has customers who want offset printing as well as full bindery support, fulfillment, and distribution services. Their facility cannot accommodate the required technologies, and these services were not their core competence. The Ace Group has established a relationship with offset printers, they have a finishing partner next door, and they also have a fulfillment and distribution alliance to meet the needs of their customer base.

APPLICATIONS

The printers were asked to identify the primary applications they were running (multiple responses were recorded). Of the 41 satisfied printers who replied, 140 responses were generated in the categories shown in Figure 4.

The most frequently mentioned application was marketing materials. Printers were producing an average of two different types of sales and market support documentation. Business

<table>
<thead>
<tr>
<th>Printed Product Category</th>
<th>Examples</th>
<th>Number of Responses (n = 140)</th>
<th>Percentage of Cases (Adds up to more than 100% due to multiple responses.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing materials</td>
<td>Brochures, postcards, posters, signage, direct mail, sell sheets, personalized ads, point-of-purchase displays, short-run catalogs</td>
<td>81</td>
<td>202%</td>
</tr>
<tr>
<td>Business documents</td>
<td>Annual reports, business cards, reports and binders, technical manuals</td>
<td>17</td>
<td>43%</td>
</tr>
<tr>
<td>Novelty items</td>
<td>Phone cards, static vinyl, plastic overlays, wedding books, photographic products, art prints</td>
<td>13</td>
<td>33%</td>
</tr>
<tr>
<td>“Anything”</td>
<td>“There is nothing we won’t print.”</td>
<td>10</td>
<td>25%</td>
</tr>
<tr>
<td>Books</td>
<td>Books, book covers, CD covers</td>
<td>10</td>
<td>25%</td>
</tr>
<tr>
<td>Transaction statements</td>
<td></td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>Packaging and labels</td>
<td></td>
<td>3</td>
<td>8%</td>
</tr>
<tr>
<td>Agency support materials</td>
<td>Proofs and ad reprints</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Architectural materials</td>
<td></td>
<td>1</td>
<td>3%</td>
</tr>
</tbody>
</table>

Figure 4: Primary Printer Applications
documents were mentioned by 43 percent of respondents and 33 percent mentioned novelty items. One-quarter of the printers reported that there was nothing they wouldn’t print. And smaller percentages produced transaction statements, packaging, agency support materials and architectural materials.

Over three quarters (78%) of satisfied digital color equipment owners were doing variable-data work. The median amount of work this represented was estimated to be 10 percent. The distribution of responses is presented in Figure 5.

While the variable-data percentages appear low, the key message from users was that demand was climbing, and the printers knew they needed to “get in the game.”

Users have learned some important lessons on both variable-data and short-run color applications.

- **When it comes to variable data, educating a client about digital printing is the most important task a printer has at their first meeting.** One of the most effective ways to drive home the message of digital printing is for the customer to experience it first-hand. Val DiGiacinto from the Ace Group said, “It’s really when the customer experiences it for himself that we get the ‘you can do that’ concept across. Then we know we have the client hooked.” During initial presentations, successful printers realize the need to include a high-quality demonstration of the capability. Successful firms personalize the presentation to include logos and company pictures into the presentation, as well as to integrate the company’s mission or CEO’s vision into the presentation. They also have a comprehensive sample book organized by industry segment. If they are calling on an insurance company, they show samples that are relevant to that particular industry.

- **If the application is migrating from traditional offset to digital, printing firms need to explain the value proposition associated with an alternative way to get the client’s information out there.** Firms like Barnaby’s and Unique Printers market their digital capabilities to customers by placing an emphasis on their ability to make changes at the last minute, as well as its short-run capabilities and do short runs. This becomes particularly important for specific industry segments. Customers like the ability to make changes anywhere and at any time for specific job types. Quick turnaround has also been a strong seller for key applications.

- **Most importantly, the message we received on application selling was that the sales representative needs to identify the right visionary.** For variable-data solutions, the visionary needs to be able to make that brash decision and change the whole direction of the marketing campaign. For more traditional application transfer, the visionary must appreciate and understand the importance of supply-chain management for printed material. That person needs to value the ability to eliminate obsolete documentation as well as quick turnaround on content.
• Finally, those companies that are most successful at driving volume are providing a link to the customer through the Internet. Firms, both large and small, that are driving digital color have an on-line connection to their customer base for simpler tasks like order entry. In several instances, they are building custom templates for clients to incorporate variable images and allow customers to do a screen proof before submitting the job for printing. These applications range from business cards to greeting cards. Firms like Rastar Digital Media have put together an entire solution, from strategy through creative content and messaging development, that’s combined with and driven by customer databases. They have actually developed their own CRM database tool to drive one-to-one communications out of that process through print. They also have a dynamic e-mail equivalent that drives people from print to the Web for multi-channel communications. Rastar realized they needed a business model that generated revenue from both print and nonprint materials.

I AM STILL IN BUSINESS—BUT RESULTS?

Of the firms still in business, 18 percent were not happy with the overall business results associated with their digital color acquisition. The reasons reported for why the digital color business was not meeting these expectations are as follows:

• “It is too expensive. There are better methods at less cost. Serviceability is not good.” (Owned five years.)

• “The machine operated reliably only 40 percent of the time; it was not working for six months.” (Owned two years.)

• “The value added (of variable data) is not a priority versus the unit cost.” (Owned six years.)

• “Not enough demand. Price is too high per copy.” (Owned 15 years.)

• “It’s hard to convince clients of final quality. Proofing is a let down.” (Owned 12 years.)

• “Poor volume.” (Owned five years.)

• “Would like more education on how to sell it.” (Owned eight years.)

As readers assess these issues, there is not a great deal of news.

• There are still questions relative to the justification of the “short run” for digital color. Xerox has stated that, with the introduction of the iGen3, the consumables cost will be driven to less than five cents per page. The question is: will that be adequate to stimulate a stalled market?

• Reliability and serviceability were not pervasive issues for the majority of survey respondents and appeared to be based on the location of the specific user. Respondents generally felt that the technical issues of the past were behind them.

• Justification for variable-data applications is still an issue with several user populations. There is a gap in data available for application development; the print buyer (marketing executive) view of return on investment for customized applications; and an inability to execute a consultative sales process for market development.
WILL WE LEARN FROM LESSONS OF THE PAST?

The market again is facing the introduction of new technologies as Xerox rolls out the iGen3 and NexPress focuses on delivery of new technology. Xeikon has the backing of Punch, and HP is investing in enhancements and improvements to the Indigo product line.

While there have been market failures, both large and small, in the past ten years, there have also been successes. Digital color firms have typically grown faster than the general printing industry.

While many of these firms didn’t start out with a solid business plan, they did define a better business model as they expanded. Examination of firms like RT Associates, the Ace Group, Art Smart Digital, Rastar Digital Media, and Banta, reveals four common threads that contributed to their success and that should support their continued market growth:

1. They understand their customer base and their respective target markets.

2. They do not define themselves as digital color printers. They offer a value-added service portfolio that makes them an integral part of the business model for their customer base.

3. They have a balanced business model that lets them make future investments funded by current business.

4. They have an Internet strategy to address future market opportunity.

While these seem like simple concepts, before vendors sell equipment and printers buy hardware they should do an honest self-assessment. Digital color equipment purchasers need to look at those who have experienced success through leveraging digital color technology and learn how to build a color business before buying market hype.

WORKS CITED


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Production digital color technology was introduced more than ten years ago. Based on simplicity of operation, variable imaging on the fly, quality approaching offset, a wide range of substrates, in-line finishing options, and consumers with a desire to print more and more in color, this technology should have been the “goose that laid the golden egg” for the printing market. While this has not been the case for several digital color print service providers, The Ace Group has developed a “full-service approach” that incorporates high-quality digital color printing. They were an early adopter of short-run digital color printing and have demonstrated that it will continue to be a critical part of their digital service bureau offerings. This case study is designed to illustrate The Ace Group “strategy” for leveraging digital color to grow revenue and profit for their business.

THE HISTORY
With a business model built in the pioneering tradition set by its founder, John Gagliardi, the New York City-based Ace Group is taking digital color services to new levels. The Ace Group was built on two major premises: staying in front of technology and providing benchmark full-service offerings to their customers. Val DiGiacinto, vice president of sales, summed it up when he said, “Regardless of the customer’s requirements, we want them to think of the Ace Group first. If we can’t provide the specific service or do the print job, we will still find a way to get it done. It is all about delivering the best possible service to the customer.”

The Ace Group was founded in 1969, when John Gagliardi, a linotype operator for a newspaper, decided to open a job shop that provided hot-metal typesetting services for the commercial market. The result was Ace Typographers.

As technology changed, so did Ace Typographers. John’s sons, Vincent and Tony Gagliardi, have carried on this tradition of providing advanced levels of customer service.

In the early ‘70s, as phototypesetting emerged, Ace invested in a Mergenthaler. They were early adopters of imagesetting and had one of the first Linotronic devices in Manhattan. And then there was the introduction of the PC in 1981. The Gagliardi family realized that page creation and production would move back to the originator, eliminating typesetting services as the market knew them. They expanded offerings to include scanning, image retouching, commercial prepress, and early adoption of digital color printing. In 1989, Ace Typographers realized that the market and the services they were providing went well beyond typesetting, and the firm was renamed The Ace Group.
THE COMPANY TODAY
The Ace Group generates more than $12 million in revenues and employs more than 50 people in their digital print services and conventional prepress operations. They have grown at more than ten percent annually for the past several years and project continued growth as they expand service offerings to their customer base.

Today, sixty percent of business is still linked to traditional prepress. The key prepress services they offer their client base include 24-hours-a-day, 7-days-a-week support for:

- **Digital prepress.** The Ace Group works with clients on every facet of the production process for jobs like four-color double-page spreads from page layout and photo manipulation to printing and binding. They provide the electronic mechanics, high-end graphic trapping, film separations, offset contract proofs, and black-and-white engraving. They also pick up and deliver work, or their clients can send and receive files via modem or ISDN lines.

- **Studio services.** Based on their creative talents, the Ace Group supports advertising agencies in the development of client presentations. They provide color comps, packaging, 3D color-corrected TV comps, die-cut mock-ups, custom foils, dry transfers, airbrushing, miniature model construction, and mounting and laminating on a variety of boards.

- **Digital output.** From simple imaging to complex film separations and trapping, the Ace Group works with graphic arts professionals to make their creative visions a reality. They provide an array of advanced output capability for customers for both film and paper output. Ace’s output options include Agfa’s Avantra 25 and 30 for high-resolution film separations, Kodak Digital Approvals, Pressmatch Offpress four-color contract proofs, Linotronic output, Kodak DCP 9300 high-quality, full-bleed CMYK proofs, and Canon color proofs.

- **Scanning and retouching.** The Ace Group also provides scanning and retouching services. They use the latest high-end scanners and software to work with files containing hundreds of megabytes of data. They specialize in sophisticated image compositing and photorealistic light and shadow effects.

While these services continue to be important to the Ace Group’s customer base, the company realized the prepress market is maturing. They wanted to expand services and move closer to the customer in order to extend the depth of the relationship. They viewed digital color printing as the next major frontier. They added large-format capability to their service portfolio, and today they have three Displaymakers installed. While digital color printing was still in its infancy and its total volume was but a fraction of commercial printing, the Ace Group viewed this as a market segment that could yield double-digit growth. In 1994, the Ace Group installed the first Agfa Chromapress in New York City. Most recently, they have added two Indigo Ultrastream 2000s.

These devices are more than print technology to the Ace Group. Their revenue growth strategy is focused on leveraging digital color and an integrated suite of digital print services that include variable-data printing; document management; document archival, finishing, kitting, and fulfillment; and mail operations to expand their share of the customer’s total business. Over the next 24 to 36 months, they believe that the revenue pendulum will shift and that 60 percent of their revenues will be driven through print-related services rather than prepress.
DIGITAL PRINT OPERATIONS

The Ace Group was a pioneer in the digital color market. The decision in 1994 to invest in an Agfa Chromapress was based on a long history with Agfa through their purchases of imagesetters and proofers, and they knew that Agfa understood color. They also felt that Agfa was best equipped to help them make the market transition into digital printing.

Recently, the Ace Group installed two Indigo Ultrastream 2000s to compliment their digital color print operation. When they were asked “Why Indigo?” their answer was twofold. Digital color print solutions have become a critical part of Ace’s overall business. With Xeikon’s recent filing for creditor protection and the announcement by the board that the company will be put into liquidation, the Ace Group was concerned about the long-term customer support required to sustain their digital color operation. The recent acquisition of Indigo by HP has given the Ace Group confidence in Indigo’s long-term financial stability and the ability to invest for future product development.

Second, they are being faced with expanded customer requirements for custom colors and a broader array of substrates. The ability of the Indigo presses to support six colors is becoming more and more important. Corporate color capability has secured new clients for a variety of promotional materials. In addition, the broad range of sheet-fed coated and uncoated substrates has streamlined the overall operations compared to web-fed equipment.

The Ace Group also installed a Heidelberg QuickMaster DI for a brief period of time. As they looked at their market mix, they saw direct-imaging technology as an opportunity to handle run lengths of 500 to 2000 for short-run color work. While the technology was sound, it didn’t fit the skills and business model for the Ace Group. Tony Gagliardi explained, “While we understand printing, we aren’t printers. We didn’t know what to do with the dollies of paper scattered all over that were drying before we could print the second side. We also were not good at competing on offset pricing metrics. We wanted a business model that worked with our client base to sell a better message; incite action on the part of their customers; and provide them with a return on their marketing investment.”

The Ace Group turned their focus to what they felt they could do best: short-run color with a focus on variable-data marketing programs. More than 75 percent of the work they do today falls in this category. They work with their customer base to prove to them that “the beginning of the end of the mass-marketing era has arrived” and that it is time to match marketing messages with the individual needs and interests.

BUT IS THIS A PROFITABLE APPROACH?

Val DiGiacinto feels that variable-data services are a differentiator for their company. Knowing how to charge for short-run digital color and variable-data printing is both an art and a science. From an artistic perspective, Val has worked hard to educate the customer base on the value-added benefits that digital printing can provide. When the Ace Group sets price, it is in accordance with the value to the customer. There are other New York City firms that compete on price for print and prepress services. However, these competitors can’t do high-quality variable-data work. It is what sets the Ace Group apart in the market.

The science is knowing your cost base. The Ace Group management team understands the cost metrics associated with running their digital printing business. They can clearly define the consumable cost for every impression, the equipment lease payments, the labor costs, and the associated overhead for all facets of their operations. They use Metacommunications Job Manager, a Microsoft SQL server-based database solution for estimating, tracking, costing, and billing for all of their work. And it is obvious that they are making money on digital printing operations.

Case History I: The Ace Group
When asked about the pricing model for cost recovery, Val DiGiacinto answered, “Cost per piece is irrelevant. What we do is not a commodity, it is a service. Our clients have paid anywhere from a $1.50 per sheet to substantially more than that. The key is that the Ace Group has helped their client deliver a better marketing message. If the client believes that, the cost per piece is not an issue.”

**BUILDING ON CORE COMPETENCE—PARTNERING FOR FULL SERVICE**

While the digital print operation is profitable for the Ace Group, their customers are looking for full service. As corporations consolidate the numbers of suppliers that they want to do business with, digital print service providers need to be sure that their portfolio meets the needs of their customers. Not everything fits a digital color press. The Ace Group realized this and also knew that several of the services that their customers wanted to buy were not part of their core competence.

In some instances, clients had an initial need for short-run print on digital technology for test marketing that would ultimately require offset printing. Variable-data applications often required companion pieces that were done in offset and then needed to be kitted and fulfilled. Occasionally, the customer wanted digital black-and-white printing. On-demand color printing required an array of quick-turnaround finishing services, and if there was a variable-data address, the document required mailing services.

The Ace Group realized that to maximize the share of the customer’s business they needed to satisfy all of these needs. Instead of building it internally, they established a network of alliances with offset printers, nearby finishers, and mail houses to provide one-stop shopping for their customers.

They have a strategic alliance with a finisher four doors down the street. While they could have invested several hundred thousand dollars on finishing equipment and built in-house expertise, the partnership with a finishing supplier gave the Ace Group both time to market for binding and finishing services and a more cost-effective business model.

The digital color prints come off both the Indigo and Xeikon Chromapress dry, so they can send the dollies of printed material to the finisher with no delay. Their customers require folding, saddle stitching, drilling, and a variety of different bindery options. Because of the strength of the alliance, their finishing partner understands the complexity of finishing short-run and variable-data material. The variable-data work requires additional planning, since the actual live job cannot be used for set-up. The finisher also needs to be sensitive to any damaged pieces. Finally, the finishing operation needs to understand that “on demand” means “on demand.” Meeting short turnaround schedules is essential to a digital print operation.

After having short-run jobs done digitally, customers started to request longer runs. The Ace Group learned early on that offset print partners would be critical to their full-service business model. Today, the Ace Group is doing more than $2 million annually with offset printers in the area. The Ace Group controls the scanning, prepress, and color and knows that their partners will deliver quality product. They also have requirements for digital black-and-white work. They evaluated the business metrics and concluded that they would prefer to vend out this work. Several digital black-and-white service providers are competing on price in the New York City market, and the Ace Group decided that they could mark up the work and generate a higher profit than making the equipment investment themselves.
As variable data becomes a more and more critical component of their business, so has mailing. The Ace Group built a relationship with a mailing operation that can handle the complexities associated with managing address hygiene, NCOA (National Change of Address) data, and presorting to maximize postal discounts.

To the extent that the Ace Group offers a full-service portfolio, they can grow revenue streams from the highly profitable areas of core competence while making reasonable margins on the services that they outsource to a strong set of business partners.

SOFTWARE—CRITICAL TO DIGITAL PRINT SUCCESS

To successfully participate in the digital print services world requires an extensive investment in software solutions. The Ace Group realized that software was critical to the effective management of operations, job workflow, digital assets, and variable data. Key components in their digital software infrastructure include:

- **Job management, tracking, and estimating through Metacommunications Job Manager.** Job Manager is a Microsoft SQL server-based database solution for estimating, tracking, costing, and billing of graphic-arts-related jobs.

- **Job ticketing and digital asset management through Metacommunications Virtual Ticket.** Virtual Ticket is a form-based solution that the Ace Group uses in combination with Job Manager. Virtual Ticket enables companies like the Ace Group to build an electronic file cabinet to organize and share job tickets and digital assets. Key capabilities include custom job ticketing and other electronic forms, forms templates, security access privileges, notifications and events, digital asset management including drag-and-drop, thumb-nailing server and AppleScript support custom finds, customization via SQL triggers and integration with Job Manager.

- **Variable-data support through Agfa Personalizer-X, Indigo SNAP and a variety of other tools.** The Ace Group attributes their success with variable data to Personalizer–X. This is a QuarkXPress extension that the entire staff is familiar with. It provides 100 percent variability within a document. Based on the ease of use and capability of the Personalizer–X software, the Ace Group is adapting it for use with their Indigo Ultrastream equipment.

- **RIPs.** The Ace Group uses both the Intellistream workflow from Agfa as well as the Indigo Ultrastream equipment using the Adobe Postscript 3 RIP technology. Postscript 3 technology is licensed to various OEMs for integration into their printing environment. Adobe Postscript 3 architecture allows preview and job modification at PostScript level.

SALES AND MARKETING—KEYS TO BUILDING THE BUSINESS

With Val DiGiacinto at the helm of sales operations, the Ace Group realizes that selling digital printing requires a different mindset—one that gets beyond the price-per-page approach and emphasizes the overall value to the customer. In addition, the Ace Group focuses on selling an account a full-service offering (prepress, large format, and digital printing) rather than selling a job at a time. This strategy has enabled the company to generate $12 million in revenue with only three salespeople.
While the market has had difficulty selling variable-data color, that is not the case for the Ace Group. Variable data comprises over 75 percent of their print volume. The sales approach for personalized print is to educate customers on how they can leverage technology to enhance the response rates.

DiGiacinto understands how busy his customers are. Since the Ace Group is located near several agencies, they conduct lunchtime seminars to educate clients on digital printing. The clients can accomplish two objectives at once: eating and learning. During the sessions, Val shares with them samples of work they have done for other clients from his extremely impressive portfolio. Val also explains, “While each printed piece may be more expensive, it is not the ink and paper that you are buying. If you can improve response rate by 20, 30, 40 percent or better, you no longer need to order millions of pieces to get that traditional two to three percent.” At the end of each session, Val has a single objective. He wants to get attendees to ask a simple question: “You mean, I can…..?” If they are asking this kind of question at the end of the session, Val knows he has gotten his message across. The attendee now has a vision of what digital print technology can do. The results may not be immediate, but, when an agency or a corporate client wants to test market or try a direct mail campaign, the goal is to have them think of the Ace Group first. If Ace Group doesn’t have the requisite skills in-house to get all the work completed, they still want to manage the account and will identify an outsourcing partner. They rarely say no to any type of work, because building the relationship and satisfying customers is key to their long-term success.

Of equal importance to the sales effort is customer service and support. The Ace Group takes pride in ensuring that, when a customer calls, the service rep knows the job status and can handle the customer’s needs. This service rep is well trained and becomes an integral part of all sales processes. Getting work is the first step, but keeping the client becomes a critical role for customer service.

THE APPLICATIONS
While the short-run digital color market started out producing short-run test marketing pieces and variable-data jobs like personalized post cards, the array of applications generated by the Ace Group today is limitless.

They produce a number of short-run static documents for their customer base. These include jewel case liners and labels, custom binders, look books for the clothing designers, sales brochures, posters, and books-on-demand for prerelease copies. They also do test versions or review copies, in run lengths of 50 to 250, of annual reports and new advertising campaigns for their corporate clients and agencies.

The Ace Group’s largest area of business expansion, however, has been variable-data printing. They are now printing personalized promotional material. For example, in the educational market, they are helping a university target students based on their specific interests. The university has access to the PSAT (Preliminary Scholastic Aptitude Test) database results and identifies those students with high test scores and career aspirations consistent with their offerings. When the student receives market-
Case History I: The Ace Group

ing literature, it is not a standard college admissions packet. Instead, the Ace Group has worked with the university to leverage the data and generate a mailer designed for that student. If the student is interested in pre-med and has been active in soccer in high school, both the text and images will be tailored to reflect the student’s interests. It will include photos of the chemistry labs as well as information and photos about the intramural soccer program (see Figure 7).

For another client, the Ace Group generates newsletters on the fly—72,241 every month. A major seed supplier, Novartis, wanted to send a newsletter to their entire customer base both to enhance their relationship and to make farmers aware of new products. Because there is great diversity in products previously purchased, weather conditions, disease and insects, and growing seasons, a message that varied by both customer relationship and geography was required. Originally, the newsletters were broken into 54 possible variations or master files. As the information about the customer base improved, the variations grew to 200. With 200 variations, it didn’t make sense to develop a standing template for each version, so now each newsletter is created on demand, at a quantity of one. The newsletter information is directly linked to the relationship Novartis has with each customer and characteristics of that customer’s geography and growing conditions. The Ace Group also presorts the database of names based on mailing addresses to leverage postal discounts. This has saved Novartis $0.12 per piece. The Ace Group also incorporated a return service request so that they could keep database information up to date. This job is printed, double-folded, double-wafer-sealed, and placed in a tray in presorted order and then delivered to the post office. This is a true full-service application (see Figure 8).

Figure 8: Variable-Data Printing Used by Novartis in a Newsletter Format
In another example, the Ace Group is providing variable-data support for Zagat. Since 1979, Tim and Nina Zagat have been publishing definitive restaurant survey guides taking data from hundreds of thousands of diners and rating the restaurant from 0 to 30 (“poor” to “perfect”). The company compiles ratings on restaurants in many regions worldwide. The burgundy books and signage in restaurant windows are useful forms of information for travelers.

The window signage containing the Zagat rating had two critical print requirements: it had to match their branded burgundy color scheme and it called for variable-data printing for each unique restaurant-rating sheet. With the Indigo’s six-color capability and the ability to print 8 1/2 by 11 inch full-bleed posters on the fly, with each poster containing survey data on a different restaurant, the Ace Group met the customer’s needs (see Figure 9).

Customer successes like this are expanding the market for the Ace Group. Their customers are beginning to understand that in the long run, the “short-run or personalized document” has more value to them.

THE FUTURE

The management team at the Ace Group feels that the future for them is one of continued growth and expansion. This growth will be spurred by the further enhancement of their service to the customer and the increase in their range of capabilities. Val DiGiacinto put it well when he said, “There are two things that distinguish us from the other ducks in the pond….service and services.”

As the Ace Group looks at expanding services, they view the Web and combining variable data with e-commerce as the next frontier. Via the Web, corporations are gathering data on both customers and prospects. Catalogers get an individual’s name and address and buying patterns for everyone that signs on and orders something from their site. Financial services companies gather data as people make investments on-line. Individuals request brochures and documentation over the Internet. The Ace Group has a vision, and the right alliances from print to finishing and fulfillment, to meet corporate needs for individualized communications programs that are blended with Web data. They continue to combine their expanded services with the best possible level of customer service.
In May of 2000, Art Smart Digital opened its doors in Mississauga, Ontario. Owners Ben Steinberg and Rick Dalmus (see Figure 10) had experience in the digital print market, working for other digital color print service providers in the Toronto area. They were knowledgeable about prepress and digital workflow, and they both wanted to exercise their entrepreneurial spirit and start their own business. Today, they have a thriving digital color business that is growing at almost 300 percent per year. They employ six full-time personnel and focus on delivering quality, quick turnaround, and the best possible customer service.

**DIGITAL COLOR SUCCESS STARTS WITH A SOLID BUSINESS PLAN**

Like all new businesses, Art Smart Digital needed funding to get started. Rick worked with the Canadian government to get a secure business loan. These loans were designed specifically for new technology start-ups. To get the required financing, Art Smart needed to develop a comprehensive business plan. The 60-plus-page document included an analysis of market trends; target market identification; population demographics and density; a complete marketing strategy; key software and hardware tools required to get the business started; staffing plans; volume projections; and pricing models. Rick knew that the plan needed to be realistic, because performance would be monitored against the plan on a regular basis.

It took Rick six months to prepare the plan, but the required level of analysis ensured that Art Smart focused both its efforts and its attention on profitable business opportunity the day the doors opened.

Art Smart’s initial investments combined prepress services with an Indigo Digital Color Press. They decided that the easiest way to accelerate volume was to build a business that focused on serving trade print shops as the primary customer base. Their ability to educate other printers in the Toronto area meant that they could maximize their market reach quickly. Working with printers who had an existing customer base and a sales force meant a substantial reduction in the cost of sales. Art Smart emphasized high levels of customer service for their trade shop partners to build strong loyalty with other printers in the Toronto area. Today, these resellers bring their customers to Art Smart Digital to work on complex digital jobs. They view the digital color shop as a color and variable-data consultant and as an extension of their business. More than 95 percent of Art Smart’s business is generated through these business partners.
Once the Indigo was up and running, there was a high demand for run lengths between 1,000 and 5,000. Ben and Rick discovered that, for certain applications, it was more profitable to print offset shells and use the Indigo strictly for variable data. They invested in a Heidelberg QuickMaster DI to expand service levels and improve profitability.

**THE APPLICATIONS**

Art Smart has had success producing a wide range of digital color work, including benefit statements, phone cards, posters, wedding invitations, advertising, and direct mailers. Today more than 60 percent of their work is driven by variable-data applications. They do a fair amount of work for financial services customers producing benefit statements every month. For data security reasons, the financial services firms prefer to pre-process the data and provide the PDF files for variable-information printing. Some of the variable-data work is relatively simple and involves applications that merely require variable text. For applications like phone cards and business cards, Art Smart uses Indigo’s Yours Truly personalization software. Product shelf labels for the Canadian Liquor Control board also leverage variable-data skills (see Figure 11).

Art Smart merges new price lists and photos for posters for all of the government-managed liquor stores in dual languages. As applications increase in complexity and require higher levels of variable imaging and text, the X-Data Quark extension appears to provide Art Smart with optimum results. Rick Dalmus is also assessing Adobe’s InDesign variable-data capability.

Art Smart has blended its variable-data capabilities with Internet services, as have many successful digital color service providers. Art Smart built an alliance with GiveAnything.com, which was founded in 1999 with the concept of providing a truly universal gift solution. The idea was simple: Gift certificates are great. But a gift certificate that could be spent at lots of different stores would be even better!

From humble beginnings, when its gift certificates were accepted at only a few dozen web sites, GiveAnything.com has become a premier Internet gift-giving and corporate-reward resource with a universal gift certificate that can be spent at hundreds of online stores, national retailers, restaurants, and movie theaters.

GiveAnything.com is collaborating on campaigns with Art Smart Digital. GiveAnything.com handles the electronic catalog and information-gathering as well as data accumulation and transmission of the data to Art Smart Digital. Art Smart takes that information and produces a custom greeting card, which can have special messaging or support a corporate-incentive campaign, using variable images and content (see Figure 12). Art Smart handles the vari-
able-data printing, shipping, and fulfillment. Both companies have patented the process.

The target market for the gift solution is the corporate market. Large companies are using cards to send Christmas gifts to employees with variable messaging. Some companies want to use the cards to thank employees for a job well done. Other firms want to send valued customers a special gift incentive.

In working with GiveAnything.com, Art Smart identified a collaborative opportunity to participate in the world of integrated multi-media campaign management. The application results in an ongoing repetitive program for Art Smart that is yielding long-term revenue potential.

Art Smart has established work processes to handle customer data regardless of how it is received. Some clients provide them with tab-delimited data, while others send Excel databases. Having the right skills and software talent on staff has been critical to application expansion through variable data.

CUSTOMER SERVICE IS STILL KING

A key premise in building Art Smart’s business was that customer service was a top priority. Ben Steinberg stated, “The key to being successful in the digital color business is providing quality, quick turnaround and benchmark customer service. In most instances printers provide two out of three, but we have discovered that our commitment to customer service is what makes our client base keep coming back.”

Art Smart understands the importance of a personal touch when it comes to customer service. When customers call the office during normal business hours, they actually talk to someone — the call doesn’t get routed to a voice-mail system. The office is a comfortable and inviting place to visit. Most importantly, when clients meet with Ben and Rick, they always get their undivided attention.

BUSINESS RESULTS

Art Smart is a full-service provider. They offer design support, digital and offset printing, fulfillment, and distribution. Fifteen to twenty percent of revenues are generated from design activity, but the majority of their customers deliver files electronically for digital color production.

Their HP Indigo device is being run profitably today. They have a shared maintenance plan for the equipment. This means that their operations staff has the same training and hardware maintenance skills as an HP Indigo service technician. Art Smart feels that this service plan both improves equipment availability and overall productivity.
They have combined their Indigo technology with a Heidelberg QuickMaster DI. For several applications, Art Smart will produce offset shells and print variable data on these shells using the HP Indigo. Leveraging blended offset and digital technology is yielding the highest profit margins for Art Smart.

Since the installation of the HP Indigo in May of 2000, Art Smart has generated more than five million impressions. Their market mix and creative application portfolio resulted in an increase in revenue of 300 percent this year – not bad for a down market!

LESSONS FOR FUTURE DIGITAL COLOR INVESTORS
While a number of digital color start-ups failed in the market, Art Smart quickly became profitable and is experiencing significant revenue growth in a difficult economy. What did they do differently to be successful?

There are five key lessons that future digital color investors can learn from Art Smart Digital:

1. **Build a business plan before making the investment.** Rick Dalmus and Ben Steinberg had an identified target market, strategy, and business model before they opened the doors. They realized that digital color work would not come to them — they needed to define their target market and execute the strategy.

2. **Understand profitability.** Art Smart understands the “smartest” way to produce any specific job. The HP Indigo is more costly to run than their Heidelberg QuickMaster DI. They properly deploy technology to maximize profitability.

3. **Provide clients with the right mix of services.** Art Smart is not strictly a digital color printer. They have established the best combination of technical skills to provide design, Internet, and database support for variable-data applications. They are viewed as consultants to the trade shops they serve.

4. **Look for creative alliances and opportunities.** Rick and Ben understand where the market is today, but they are always looking toward the future. They continually assess how print will be used and are mapping their skills and offerings to meet future trends. Their futuristic market view and creativity was the genesis for the alliance with GiveAnything.com.

5. **Service is king.** Rick and Ben have a tremendously loyal customer base. The rationale is simple. They work hard every day to exceed the expectations of their customers.

While these lessons are very basic, they are the difference between success and failure in a dynamic high-technology market. Art Smart has proven this with a track record of profitability and revenue growth.
Production digital color was introduced more than ten years ago. Based on the simplicity of operation, variable imaging on the fly, quality approaching offset, a wide range of substrates, in-line finishing options, and consumers with a desire to print more and more in color, this technology should have been “the goose that laid the golden egg” for the printing market.

While this has not been the case for several digital color print service providers, RT Associates Inc. in Arlington Heights, Illinois is a notable exception. The company developed a full-service approach that blends digital color printing, traditional offset printing, prepress services, large format support and a photography studio to meet customer needs. They were an early adopter of short-run digital color printing and have proven that it can be a key to growing your business.

RT ASSOCIATES INC.—20 YEARS OF EXPANSION
This year, RT Associates Inc. celebrated their twentieth anniversary. I had the opportunity to spend time with Bob Radzis, co-owner, to understand how they evolved from a typesetting operation in the basement of a house to a thriving $10 million-plus digital service and print provider. He shared with me both their business strategy and the rationale for selecting the NexPress 2100 as their most recent digital color investment.

In our discussions, there were three key characteristics RT Associates Inc. demonstrated that yielded this tremendous growth. First, the company has a clear understanding of customer needs and a commitment to the highest levels of service. Second, they have a vision of how to effectively deploy technology in satisfying customer requirements. Finally, they were able to communicate the new capabilities they could deliver with their digital color technology investment. These characteristics helped them expand business volumes within their existing customer base as well as attract new clients.

THE HISTORY
Between 1982 and 1995, RT Associates moved from traditional typesetting to Mac and imagesetting services. They built a loyal customer base for their electronic prepress, scanning, proofing, and film output capabilities. Bob and his partner, Gary Teuber, saw that advances in desktop publishing, computer-to-plate (CTP) and direct-imaging technologies would have a major impact on their business, as many of the functions they had historically performed moved to the client’s desktop or to a commercial print operation. They looked at the options and decided that the next step was making an investment in digital color.

In 1995, RT Associates invested in their first Agfa Chromapress—serial number 13. While some early digital color investors struggled with market development, that wasn’t the case with RT Associates, Inc. They leveraged their current customer base and explained the value associated with quick-turnaround full-color printing as well as extremely short-run on-demand color printing. They worked with local agencies and larger corporate clients on digital proofing. They built a program for printing early-adoption copies of books for educational publishers. They were profitable within
six months of the installation of their first Agfa ChromaPress, and 12 months later they purchased a second unit. They continued to add services for variable-data printing. Now, they provide financial service firms with variable-data benefit statements and fund analysis reports. For manufacturing clients and distributors, they are providing online templates so that dealers can create custom catalogs and brochures.

While the Chromapress was good at handling run lengths of less than 500 and producing variable-data applications, the company’s customer base started requesting longer and longer runs. In 1998, based on the synergy between the ultra-short-run market and a demand for run lengths of 1,000 to 2,000, RT Associates Inc. made an investment in a Heidelberg QuickMaster DI.

Another benefit of the Chromapress web-fed technology was its ability to produce banners. That capability opened the door to large-format requests, and, in 1999, they added large format to their service portfolio.

The ability to provide online services for customers was also critical. In 1999, they began hosting an in-house web site and providing FTP links for job submission.

In 2000, RT Associates Inc. moved to a larger facility in Arlington Heights, and that meant room for expansion. As they started to experience a decline in scanning services, they added a digital photography studio. Customer needs drove the requirement for more offset work with even longer runs, and this year they installed a Heidelberg Speedmaster 74 DI. They also expanded their digital color investment with the addition of a NexPress 2100.

RT Associates Inc. started as a traditional prepress service bureau, but today they are much more. Forty percent of their business is generated from prepress offerings ranging from image input to film output. The photographic studio and large-format services comprise ten percent of revenue streams. The remaining 50 percent of their $10 million in revenue is derived from digital and offset print operations—a business that was started in 1995 with the installation of the first Agfa Chromapress. RT Associates Inc. was quick to recognize the synergistic effect that a full-service portfolio has across their business. Their printing capability has increased prepress revenue, and the photographic studio has generated new customers for print and prepress. Digital printing has increased volumes for offset and large-format printing, and the company’s ability to provide traditional print has enhanced the digital color opportunity. Their most recent investment in the NexPress 2100 is viewed by Bob Radzis as one more critical element in the full-service portfolio.

THE NEXPRESS DECISION

RT Associates Inc. installed a beta-test NexPress 2100 in September 2001. Since there was little financial risk in the installation of a beta unit, Bob Radzis decided to proceed with the trial. Because they already had two installed Agfa Chromapress devices, there was an existing volume to run on the new device and a wealth of experience with digital color. It was a terrific opportunity for RT Associates Inc. to compare and contrast the latest in technology.

Bob indicated that it wasn’t a difficult decision to purchase the NexPress 2100. RT Associates Inc. was in need of additional digital color capacity. With the acquisition of Agfa’s digital print resources by Xeikon and their questionable financial future, the NexPress seemed like a logical and safe long-term answer.

There were several key features that differentiated the 2100 from other technologies, providing strong business appeal. First, a cut-sheet implementation meant less waste. Bob commented, “For my longer digital color runs like the financial benefit applications and adoption copies of educational books, the Chromapress web-printing capability is great. But for the ultra-short-run
jobs, I eliminate the paper waste with the NexPress 2100 cut-sheet implementation.” Second, RT Associates Inc. feels the quality is superb. Their customers are pleased with both the print as well as the one-day turnaround.

The NexPress 2100 was designed to print on a wide variety of substrates. The list includes uncoated, gloss-coated, and matte-coated papers, special substrates like recycled and textured papers, and even static cling materials. These diverse substrates, in combination with a cut-sheet implementation, provide increased business opportunity for RT Associates Inc. They can offer expanded application support for customers by simply loading a different paper or special substrate in one of the NexPress paper drawers.

The concept of operator-replaceable components (ORCs) also had strong appeal. NexPress is designed so that the operators can perform most of the service operations. This reduces dependence on outside service technicians and has resulted in a high level of uptime and improved productivity for RT Associates Inc. The operator can perform in excess of 70 percent of the actual machine maintenance and repair. Heidelberg assesses a base monthly maintenance fee. In addition, there are charges for replacement parts that meet the advertised life expectancy. If the part does not meet the usage target, NexPress absorbs the replacement cost. While Bob has not done a detailed financial analysis, his view is that, based on the service and support model, the cost of operating a fully burdened NexPress 2100 is the same as that of a “paid-for” Xeikon device.

During the beta process, RT Associates Inc. used the standard NexStation VDP (variable-data program). When they purchased the unit, they upgraded to the NexPress 2100 Pro and VDP 1000. This is an optional batch-processing, server-based solution that allows a higher degree of system throughput. When asked about variable-data performance with the NexPress Pro and VDP 1000, Bob said, “It screams through content.”

THE FUTURE

While RT Associates Inc. has been very successful in their implementation of digital technology, they aren’t standing still. They realize the need to continue to focus on their most important asset: loyal customers. To continue to build the business, Bob feels that he needs to move even closer to his client base. While 30 percent of his business today is variable data, he will be adding increased variable-data expertise to his organization. He will help customers design and implement applications that enhance their ROI (return on investment) through the utilization of better target marketing.

When asked about future technology investment, Bob said his focus for 2002 and 2003 was making the Heidelberg Speedmaster DI and the NexPress 2100 successful.

Based on my visit to RT Associates Inc. I don’t think they will have a problem meeting these objectives. They have developed a business model with a clear vision of where technology can take them and how to leverage it to meet customer needs.
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