

Short Run Digital Color....Where is the Market?

*Barbara A. Pellow
Rochester Institute of Technology
Rochester, New York*

Executive Overview

Production digital color technology was introduced more than 10 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 there are market successes, at this point, the reality has not lived up to the promise. Consumables costs and the associated breakeven versus offset have not caused work transfer from traditional print processes. Variable imaging and quick turnaround have inherent marketing value, yet printers have not been able to build sales models to justify the incremental cost to customers. The current data base infrastructure of corporate America is not adequate to leverage the CRM value associated with variable data and “one to one” messages. Finally, in the real world, consumers still look at price per piece.

With new product introductions discussed at both Drupa 2000 and Print '01, the digital color future is promising better quality, faster run speeds, lower costs for consumables, improved variable imaging solutions and totally automated systems from file creation to shipping designed to add efficiency that can overcome unit print costs. There are new players including Xerox, and Heidelberg NexPress as well as HP with their acquisition of Indigo. Both users and suppliers of digital color technology are wondering if these changes are going to be substantial enough to make the production digital color market explode.

There are four print/document service market segments that have historically expressed interest in digital color solutions. They have different buying motivations, different financial models and serve different customers. Key segments include:

1. Prepress – With a history of support for the creative and the design process, prepress firms have been “caught in the middle” of the customer’s marketing production cycle. They have not been involved in the planning or development. Historically, they received finished designs for processing and the resulting output went to a third party printer for completion. With advances in technology, the requirements for processing finished designs are diminishing and prepress companies are re-defining their business models. Several prepress firms

were early adapters of digital printing technology and it has proven profitable in their business model. Variable data also offers a unique niche. Prepress firms are realizing that changing their business model is key to long-term viability and are looking for new technology to alter their current course. Digital color can play a role in their future strategy and direction.

2. Commercial printers – The commercial printer has typically focused on traditional print technology as their revenue source. As traditional print becomes more and more of a commodity, they are looking at ways to both retain their customer base and expand their share of customer. The traditional commercial printer realizes that “full service” capability is becoming more important and digital color plays a role in the ability to offer quick turnaround and variable data solutions.
3. Service Bureaus – Service bureaus have focused on printing customized documents of any kind for third parties. Applications include direct mailers, statements, bills, invoices, and reports. These providers are very data savvy and prepared to address the “one to one” marketing challenge with corporate clients. Digital color offers an opportunity to produce higher margin, higher value content for their customer base.
4. In-Plant/Corporate Print Centers – Cost conscious firms are continually evaluating the costs associated with in-sourcing versus out-sourcing print. Digital color opens new opportunity for cost effectively producing content internally for both static and variable data work.

The objective of this research project is to examine the adoption rate for production digital color in the four identified market segments and define the business models required to gain acceptance in each segment. What factors...customer opportunity and market readiness or new product offerings...will cause them to make the technology investment now? The focus of the project will be as follows:

1. What are the key characteristics of each print service provider segment? Who is their customer base? What key print services do they offer today? What financial metrics do they use to evaluate technology acquisitions? What is the historical success with digital print technology...both color and black and white?
2. In each segment, what key print services do their customers buy today? What are the document (electronic and print) requirements of the end

consumers for each target segment? Where does their customer base see as the primary print applications? Are they consolidating suppliers? What services would they like from a primary document services provider? What role do the end consumers see for short run digital color? What price would they be willing to pay for zero inventory of sales literature; accuracy of content; and targeted materials?

3. What are the key enabling technologies critical to delivery of the required document services to support digital color solutions?
4. What is the resulting business model (new revenue streams and expense) that could support the digital color investment?

Methodology

The project will incorporate both primary and secondary research. The research will be conducted independently for each print industry segment. Key steps in the process are as follows:

1. *An in-depth overview of each market segment including size, current trends, financial health, and future direction.*
2. *Case histories from early adapters (successes and failures) of digital color technology that review their service offerings, business models, and impact of digital color on all facets of their business.* These interviews will include a discussion of the technology infrastructure investment, changes required in their business and sales process, and their ultimate profitability models.
3. *End user focus groups to understand the view of print in the respective customer base by each segment.* Document management and print strategies will be reviewed including desire to do more work in color and associated barriers; the value they see for zero inventory and consistently up to date material; the value associated with quick turnaround; and their willingness to pay for ancillary services including variable data, digital asset management, fulfillment, kitting and distribution.
4. *Analysis of new color technology and the cost per copy/print metrics.* This cost per copy/print will be incorporated with the overall document services model to assess the requirements for making digital color profitable for that market segment.
5. Secondary research will include a comprehensive review of all published information from industry associations (i.e. Direct Marketing Association,

Printing Industries of America, etc.), industry experts, government statistics, trade publications and other available research.

Key Deliverables

The resulting report from this project will be targeted technology providers, and print service providers. An independent report will be compiled for each market segment. The document will provide necessary information to evaluate and take advantage of the opportunities for digital color in a marketplace undergoing dramatic change. Key content will include:

1. Market trends and industry statistics by market segment...prepress, commercial print, service bureau and in-plant/corporate print centers.
2. End consumer research by segment to identify buying elasticity for print and the value of associated document services (i.e. personalization, digital asset management, cross media services, etc.) for the customers of each identified market segment. It will also analyze their readiness and desire to leverage service providers for variable data color; distribution, kitting and fulfillment operations (supply chain management); and their desire to consolidate the number of suppliers making digital color an essential service.
3. Identification of the economic business model essential for each segment, based on the different customers they serve, buying motivations for digital color, and varying financial structure. The focus will be the economic break-even that includes improved operational efficiencies of new technology as well as blended print and support service offerings in the digital color market.
4. A review of key enabling technology required by segment...both software and hardware solutions... and the associated technology investment to deliver the service levels required by their customer base.
5. A profile of the digital color decision-making process and the business opportunity in various industry segments...prepress, commercial print, service bureau and in-plant/corporate print center.

Project Plan

An individual report will be done for each segment. The work could be done on multiple segments simultaneously dependent upon the level of available resource for the project.

Task	Duration	Resource Requirements
Secondary literature search through periodicals and association information (this will identify sites for case histories); resulting output should be a report that reviews market size, number of establishments, key trends	3 weeks	1 faculty member 1 graduate student
Development of an interview guide for case histories	1 week	1 faculty member 1 graduate student
4 case histories per segment (2 successes and 2 failures) plus associated write-ups	3 weeks	1 faculty member 2 graduate students
Development of end user focus group survey guide	1 week	Focus group survey house to contact prospective participants and conduct focus groups 1 faculty member for survey guide
End user focus groups	1 week	Assume 3 focus groups will be conducted with approximately 8 participants in each group
Focus group report feedback/white paper	1 week	1 faculty member 1 graduate student

Task	Duration	Resource Requirements
Development of an economic model guide	1 week	1 faculty member 2 graduate students (printing and business cost accounting skills)
ROI analysis of cost per copy incorporating work flow efficiency	3 weeks	1 faculty member 2 graduate students (printing and business cost accounting skills)
Model validation with target segment members	1 week	1 faculty member 2 graduate students (printing and business cost accounting skills)
Final report preparation on the "Market Opportunity for Digital Color"	2 weeks	

Biography

Barbara Pellow is currently Gannett chair in integrated publishing sciences at the Rochester Institute of Technology's School of Printing Management and Sciences (SPMS). As Gannett chair, Pellow will focus on the relationship between traditional paper-based media and emerging electronic new media, provide leadership in strategic management and operations of the publishing industry, and develop new curriculum. Before joining RIT,

Barb was Senior Vice President of Marketing at IKON Office Solutions, Group Director for the On Demand Printing and Publishing Service at CAP Ventures, Vice President of Worldwide Marketing for Indigo, and Vice President and General Manager for Xerox's U.S. Document Production Systems unit. Pellow started her business career in sales and marketing at IBM, and was educated at Michigan Technological University, where she received a B.S. degree in Business Administration.