



WHITE PAPER

AN INVESTIGATION:

DIRECT MAIL RESPONSES

BASED ON COLOR, PERSONALIZATION,
DATABASE, AND OTHER FACTORS

by

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INTRODUCTION

Vendors of personalized/variable-data printing systems like to make unsubstantiated claims such as “Variable Data/Personalized Printing can give you up to a 46% response rate!” (Crim, E., *Who’s making variable profitable?*). No study has performed a cost-to-benefit analysis of an expensive, highly personalized print run done on a digital color press. Of course, thousands of direct marketing studies exist, but none address this issue. With that said, the questions facing businesses and printers are these: Does the technique pay off? Is a highly personalized direct mail campaign worth the significantly higher cost? Are there profit opportunities for printers? When will the window of profitability close and the technique become a commodity? These will be the problems examined in this project. There is a current industry need for a profitability assessment and cost/benefit analysis of the application of personalized printing to direct or “one to one” marketing.

BACKGROUND

Prior to the 1993 introduction of the digital color presses, the technology to print thousands of highly personalized, full-color pieces did not exist. Color copiers could not and still cannot print full-color pages quickly enough to be useful for anything but small print runs, and their output quality is often unacceptable to marketers. Digital color presses offer much faster production speeds and similar-to-better output quality than a color copier connected to a PostScript RIP. Software to drive these presses with variable data has only recently become available; in the past, applications for variable output were custom-written for specific presses or high-speed transaction printers, written by in-house IS staff, or written for specific mainframe data management and transaction processing systems, such as the ones that generate your telephone bill.

Software developed for desktop computers now exists to drive the current generation of digital color printers and presses. Now that the ability to generate vast quantities of highly personalized printing exists, the question remains: “Does it pay off?” The significance of this problem is the much higher cost to users of the technology—without careful planning and a relevant database, a personalized marketing program is bound to be an expensive failure.

Businesses need to know that the expenses involved in a personalized print run will generate a profitable rate of return on their investment before they invest in it. With careful application of demographic science and selective data mining, it may be possible to improve customer response from a typical level of 2% for generic “junk” mail to 50% or better in a well-planned personalized marketing program. A quantifiable rate of return on investment based on a “real world” marketing program that uses varying levels of personalization will be one of the outcomes of this project.

Currently the biggest barrier to highly-variable printing are limitations in the RIPs or digital front ends (DFE) that drive these presses. Variable printing involves processing and storing vast amounts of data, and systems optimized for this process are only now starting to become available. Such runs are costly because often the press must sit idle until the RIP or DFE has finished processing the job and is ready to drive the press. Future advances in computer processing technology have and are expect-

ed to follow Intel founder Gordon Moore's 1965 "Moore's Law," which claims that transistor density of microprocessors will double every 18 to 24 months. If one follows the history of the microprocessor, one can see that Moore's Law is a bit pessimistic especially if applied to the past decade. It will take at least a quadrupling of the current state of the art in computing power to allow variable printing to be performed in real time, as data is received, on today's relatively slow digital presses. Press speeds will, for the near future, always outpace the ability of the RIP to feed data to the press quickly enough to prevent idle time or blanks in the web, depending on whether the press is sheetfed or webfed. Digital web presses cannot be stopped and started on demand; they require the movement of at least 20 feet of web to build up the electrostatic charge that these xerographic presses need for printing. This ejected web length becomes waste. If the RIP cannot supply information in time, the result is plenty of wasted paper whether the press is stopped or not, since the press will simply feed blank web until data arrives from the RIP. It will be some time before variable printing becomes a slightly more expensive alternative to static printing on traditional presses. If high-speed reimageable press technologies such as MAN-Roland's DICO web/gravure system or Scitex's high-speed inkjet web press become commercially viable, it will take another exponential leap of processor technology to drive such presses at full speed with variable content.

EXPECTED OUTCOME

Subjectively, the research may prove that there is a quantifiable profit advantage to the use of personalized printing as a direct marketing tool, especially as the level of personalization increases. Future advances in digital press technology and the introduction of easy-to-use and powerful variable-data printing software will ensure that the process will become no more unusual, and only slightly more costly, than any other type of pressrun. The window of opportunity for adding significant value to a digital pressrun by incorporating personalization is wide open, but it will not stay open forever. (Crim, E., *Who's making variable profitable?* [1998], [online]. *American Printer*, vol. 220, N° 4, Jan. 1998, pp 34-36. Abstract from PIRA, File N° A20108033. A 45% response is Moore Corporation's claim for percentage of customers of Royal Dutch Telecom's [KPN] "Toets 9220" personalized marketing campaign who made a purchase from their customized product catalog within 60 days of receiving it. Moore of Grand Island, NY, was the printing contractor for KPN.)

REVIEW OF LITERATURE

Does the technique (customized variable-data printing) pay off? Is a highly personalized direct mail campaign worth the significantly higher cost? There are a number of factors that make a personalized print run more expensive to produce than a static run printed digitally or by a traditional process such as offset lithography—preparation of the data, rendering time for each item, and higher personnel costs. Are there profit opportunities for printers? When will the window of profitability close and the technique become a commodity?

OVERVIEW/BACKGROUND

The publication of Peppers and Rogers 1993 *The One to One Future: Building Relationships One Customer at a Time* caused an uproar in the marketing and advertising industry. Marketers and businesses were told in no uncertain terms that their days were numbered if they adhered to the product/market-share mentality so prevalent for decades; that they must reduce the pursuit of new business and greatly increase the pursuit of business from existing customers whom they already know instead of blanketing the nation with ineffective advertising that offers little differentiation of one product from another. Within the past few years, computer technology has advanced to the point where the collection of what might have once been insignificant customer information is poised the marketing industry for the next revolution in selling : one to one marketing or relationship marketing. It is now possible to keep track of massive amounts of customer data on a contemporary desktop computer and to effectively use that information to service a single customer for life. Keeping a customer for life can realize substantial benefits, as a GM executive avers in his estimate that a loyal customer is good for about \$400,000 in business over a lifetime (Peppers and Rogers, 1993).

The idea behind relationship marketing is to eliminate reliance on “mass marketing” techniques such as television advertising and supplant these expensive devices by developing a relationship with a customer—be that a business or a consumer. It is a technique that can, potentially, be used to sell anything from automobiles to disposable diapers by reducing marketing costs and by establishing a degree of trust and confidence in the consumer while giving the customer a reason to keep coming back for more (Peppers and Rogers, 1993). Another way of defining relationship marketing is: fostering a relationship that the customer is unwilling to terminate (Lewis, 1998).

Twenty percent of a firm’s customers account for 80% of sales, and the rest ultimately are not worth any extra effort involved to increase their rate of orders or store purchases: the “below-zero” customer. In some cases it can make sense to “fire” a customer, for example, a customer who may continue to put new business out for competitive bidding no matter how good a job the last contractor did, or one who switches brands of household products every time he or she goes shopping depending on which coupons are available or if a brand is being deeply discounted vs. other brands of the same product. Focusing a business’s marketing strategies on only the most valuable customers—both existing and potential— then keeping those customers and growing their sales, is the defining characteristic of the customer-driven competition of relationship marketing, versus the product-oriented, aggregate market-competition marketing (Peppers and Rogers, 1997).

CURRENT ISSUES

Applying this new wave of marketing to direct mail can be done to a much greater extent than has been previously possible with simple “personalization” of a mailed piece with a high-speed inkjet system. Digital color printing presses and more recent advances in software technology offer the ability to add much more to a printed piece than just a name, address, and a salutation. Entirely customized documents are now possible in full color, tailored exactly to the recipient with content selection based upon a carefully maintained database and intelligent selection of data by both marketing managers and by database management applications (Broudy and Romano, 1999). Databases are developed and grown in several ways: by surveying customers, by initiating one-to-one communications, and by using some type of response system whether telephone or

Internet-based to continually update the database. Many corporate databases contain irrelevant information, or information of poor quality (Lewis, 1998).

Careful database management must become a hallmark of successful variable-data print runs. A potential problem for printers is the range of database types used in corporate information systems, ranging from large mainframe-type computers to desktop systems. Typically, large corporate databases exist in a variety of formats regardless of the computer type upon which they are stored, and they must be converted to a flat text format for use with a variable printing system (Ray, 1998). The database is relatively useless unless it is purged of outdated, incorrect, or irrelevant information, and it must be carefully audited by both an experienced database manager and the marketing manager in charge of a variable-data print project. The buzzwords "data mining" simply refer to the process of creating search criteria and then extracting all database records that meet those criteria. Defining search criteria that are relevant and further determining if data exist in the database that may meet those criteria are critical steps that must be taken before any attempt is made at a print run. An expensive failure will be the inevitable result of poor database and marketing management (Broudy and Romano, 1999).

A further breakdown of variably-printed materials can be made as such: personalization, where the product carries at least the recipient's name and address on the outside and maybe repeats one or both somewhere in the message; customization, where the content is specifically designed for a particular target group or a certain occasion; versioning, where differing versions of a printed product are produced for a group of recipients, such as regionalized magazine covers; and tailoring, where a single printed product is created using database marketing information to make a unique document for each recipient (Juhola, Bäck, Kautto, 1998).

Interest in the technology from advertisers and marketers is growing but is tempered with the increased expense of the process. For example, 50% of companies surveyed would be willing to pay up to 10% more for tailored materials, and 20% would be willing to pay more than 10% for such products; large companies are more willing to pay more than smaller ones, as are services and trading businesses (ibid).

Databases of source material exist in tremendous volumes, but in order to be most effective, tailored advertising and marketing mailings must rely on the existence of relevant data from which to create the printed products. The "pull" model of marketing gives customers the opportunity to voluntarily provide sellers with crucial information, whereas the "push" model of marketing is limited by the relatively low quality of mass-market databases. An example of pull marketing would be a business-to-business method of collecting orders for printed materials from customers through an Internet web site, gathering the specified data, printing the materials with the customer's data, then delivering the materials directly to the customer (ibid).

Such a system has been developed by Digital Marketing, Inc., which uses a web interface. Companies can upload images, boilerplate copy, and customer databases for their subsidiaries to use as they please. Once ordered, the job is electronically delivered to a participating printer, who prints the job and either completes the mailing fulfillment or delivers the printed product to the customer or a third party for further finishing and fulfillment (Broudy and Romano, 1999).

The cost of producing a variable job can be quite high even with a modest level of tailoring. Specialized software, complete and correct databases, hired talent, and a clear plan of attack are

required to make a cost-effective, variable-tailored print run. Knowledgeable printers who can partner with advertising and marketing firms who are committed to producing variable-data, highly tailored printing can expect to profit nicely from such an arrangement (Juhola, Bäck, Kautto, 1998).

Projected annual compound growth of direct marketing as an advertising medium is expected to be 6.4% for the period 1998–2000 against a lesser amount of growth in total U.S. advertising expenditures and employment in general (U.S. Direct Marketing Association, 1998). Direct marketing expenditures in the U.S. totalled \$153 billion in 1997 and direct marketing revenues exceeded \$1.2 trillion in 1997 (Romano, 1998).

A growing trend is to substitute technology such as comprehensive database management and interactivity for increasingly scarce skilled labor. Interactive marketing expenditures, tracked only for the second year, were projected to be \$603 million in 1998 and are expected to grow 54% annually to achieve a target of \$5.3 billion by 2003. “Interactive” marketing can generally be defined as pull-model marketing with customer-initiated inquiries directed at telephone call centers or at Internet web sites (U.S. Direct Marketing Association, 1998).

Overall direct marketing expenditures still consider telemarketing the king of media types, with 38.1% of all projected direct marketing expenditures. Direct-mail advertising is next with a 24.1% share of expenditures. Next are direct-response television (24.1%), newspapers (10.5%), and least are direct-response magazine and radio advertising (8.7% combined). Television, radio, and magazine expenditures are predicted to grow at a faster rate than those of telephone and newspaper. Not accounting for variable-data printing, direct mail has the lowest projected spending growth rate with an estimated growth rate of 6% through 2003 (ibid).

Direct marketing categories are split into business-to-business and consumer categories. Telephone marketing is the leading medium in business-to-business marketing and accounts for 44.5% of all business-to-business direct marketing sales, while direct mail is the leader for consumer-level direct marketing, in the form of catalogs and other offers, accounting for 35.3% of all consumer-level direct marketing sales (ibid).

Investing in short-run digital color printing systems, and by extension, variable-data software and skilled digital press operators, aids printers in capturing new business from financially successful customers by developing personalized/customized printing services for them, while presenting a significant challenge in terms of finding competent employees knowledgeable in the technologies and processes involved. Further profit potential exists in possibly greater volume by offering database management services to customers involved with variable-data printing. As with current pre-press operations, providers must be prepared to offer support and tools that synchronize with those used by their customers in order to get the business (Tilden, 1998).

Much of the profit involved with variable-data printing is not made on press (which requires a number of elements to be present for it to work properly and profitably): knowledge, equipment, planners, communicators, and project managers are all crucial components. The profit center becomes not the press, but rather the services offered in conjunction with producing a variable print run. Marketing executives don't really care and don't want or need to know about the technology used to create variably-printed product. They do need to know that the technology will produce a reliable, quality product for them in a timely fashion and that that product delivers max-

imum value for their marketing dollars. They also care dearly about billing, accounting, project management, mailing and fulfillment, service levels, facilities, and business results. Value determines cost, and printers need to assess the perceived value of their services and be very careful not to underestimate the value their services provide to their customers; they must learn how to justify to their customers the price for services that are not easily quantifiable. A test model of pricing should be developed by each printer for use with several clients, as well as the use of benchmarking studies and extra fees for special services (Mathison, 1998).

Data alone is not enough to produce a successful variable-data print run—the provider and client need to know what to do with the information once it is extracted from the database. Offering graphic design and creative services, digital asset management, and flexible product packages, such as a complete line of customizable sell sheets, to clients is another means of adding value to a print job (Graves, 1998).

To add variable-data printing to a provider's range, the printer must first consider whether he or she will lose money by not investing in the technology, then determine the investment that must be made in order to offer the service. Because printers typically operate on narrow profit margins, and many U.S. printers were profitable in 1997, forward-thinking printers need to create niche markets for themselves to differentiate their businesses from the current commodity mindset under which many commercial printers labor. They need to specialize instead of trying to cater to every potential customer (Hoefle, 1998).

In offering variable-data printing services, printers must understand that the process requires many more steps than traditional static printing. In addition to the usual prepress issues that, except for image trapping, do not go away, they may need to offer additional services in order to get the business: data analysis services to their data processing-challenged clients, creative services to the design-impaired, data certification such as checking for USPS-CASS compliance, post-processing such as barcoding, auditing services to ensure that the required pieces were actually printed and delivered, and fulfillment services including mailing (Gauthier, 1998).

It certainly appears that leading experts in the field of direct marketing and one-to-one marketing consider the new technology to be a viable one, and a profitable one as well. Accounts of users of the technology (see *GATF Conference Proceedings: "You May Be a Winner!"*) back up the assertions of marketing "gurus" like Peppers and Rogers that the technology is an enabler of relationship marketing. The experimental phase of this project will provide hard data to confirm or deny much of the talk that's been said on the subject, of which there has been a lot of volume but not a lot of substance.

CASE HISTORIES

Making Menus

Darden Restaurant Corporation, which operates 1,200 Red Lobster and Olive Garden restaurants in North America, was printing menus on an offset press with numerous plate changes required for regionalized versions of menus. Significant time was spent in producing films, proofs, plates, and in press makeready. Jobs required time to dry before they could be printed on the reverse side. The company was falling behind in the ability to quickly produce menus and the numerous other printed pieces used in many restaurants such as the stand-ups on tables, special menus for liquor and desserts, and promotional materials.

To keep up with the demands of store managers, Darden's in-house creative and printing group acquired a Xerox DocuColor 40 and a Xerox Majestik color copier, each driven by a Fiery RIP that processed jobs created on a number of Macintosh computers. The time to produce a job went from five hours with offset to just an hour with the new digital color printers, and the cost to produce the run plummeted from \$2,500 to \$500. The food service industry requires fast response times to accommodate regional tastes and price sensitivity. Darden now produces menus that can be quickly customized for each restaurant location, a major concern when over a thousand restaurant managers all demand some sort of customization. The completed materials are shipped to each location within a day of printing. The increased capacity has also led to the printing of many of the company's marketing materials, internal communications, business cards, newsletters, point-of-purchase displays, and regional management reports.

Customized Catalogs

Royal KPN N.V., the company which owns the Dutch phone and postal services, wanted to create a service which lets consumers request information about products and services and receive a customized catalog in the mail within 48 hours. Customers access the service via telephone, Web, or teletext service and request information on a range of products and services, including travel, home furnishings, computers, electronics, cars, and financial packages. Once the request is made, a four-color, personalized catalog is delivered to their door within 48 hours. A customer can receive additional information, including expert advice, manufacturers' specifications, advertisements, comparative test reports, and local dealer or supplier addresses for requested products, for the price of a phone call, around \$1.50.

Toets 9220 ("Dial 9220") allows KPN to gather consumer data while meeting the consumer's need for personalized information. This led to an alliance with Moore Corporation's Interactive Solutions Marketing division. The Moore-devised printing system is based on its Intelligent Color Imaging technology which allows production of short-run, full-color, variable-page catalogs while providing management of KPN's customer database.

For example, if a customer requests information on home electronics, Moore's technology selects all the products and services that fit the customer's electronic profile. Then this variable data is sent to a Xeikon digital color press and the customized catalog pages are printed, folded, perfect bound, and trimmed. The finished catalog is then delivered to the Dutch Post for overnight or same-day mailing. Moore's digital print technology allows the entire process to be completed within 48 hours. More than 3,000 36-page booklets are produced each week. Toets 9220 has attracted participation from premium advertisers including Mercedes-Benz, Citroën, Phillips, and

Whirlpool. Participants are selected on the basis of market share, with featured products and services determined by customer demand. Advertising revenue is used to subsidize catalog production, distribution, and awareness campaigns.

The Toets 9220 campaign has so far reached 18% of the Dutch consumer market and has elicited a 5% response rate. Of those who respond, 45% purchase a product or service within two months while virtually all (91%) refer to the booklet when making a purchasing decision.

Whirlpool Corporation

Brett Knobloch, manager of Interactive Consumer Marketing at Whirlpool Corporation in Benton Harbor, Michigan, is currently piloting a program that makes effective use of variable printing. Whirlpool is the largest home appliance company in the world and manufactures appliances under its name and others. Knobloch is creating a marketing program that takes advantage of what he calls "life events," such as purchasing a new home, remodeling an existing one, or replacing a set of elderly appliances. People in these situations have the time to research and compare appliances, unlike someone whose dishwasher has just exploded and needs a replacement right away. Whirlpool is targeting event decisions with print media ads which include a toll-free telephone number to call for more information. All calls are answered in Whirlpool's call center. When a customer calls about appliances, the phone operator helps the customer narrow down a selection based on needs, then uses a proprietary Web interface to build a custom appliance catalog for that customer. If a consumer just wants general appliance information, a conventionally printed product catalog is sent.

The data entered by the phone operator is collected and sent electronically to ColorStream Technologies in Chicago, a digital print and fulfillment service, and is merged with a predefined layout produced by Whirlpool's corporate design firm. Images selected from a database of digitized photographs taken by Whirlpool's internal photographers are merged with the layout and variable text, and printed on one of ColorStream's two digital color presses. After finishing, the catalog is mailed to the customer. This process is performed six days a week.

Knobloch's objectives are to deliver a catalog of the same quality as the conventional offset-printed catalog in the same timely fashion, to reduce cost of conventional printing and inventory due to frequent product changes, and to create better one-to-one communication with Whirlpool customers. In addition to the personalized catalog, customers will receive additional messages via e-mail that thanks them for calling, confirms the catalog shipment, and keeps the customer aware of the brand.

ColorStream receives data files daily from Whirlpool and uses a third-party application to connect the Whirlpool database to ColorStream's processors. Using Barco's PageStreamer software on a Xeikon press, and Bitstream's PageFlex software to drive an IBM InfoColor press, ColorStream uses the disk cache available on both of these systems to store pre-rasterized images and page layouts as much as possible, to reduce processing time and press idleness. Tim Graves, a production manager at ColorStream, maintains that for most jobs, the two RIPs are able to drive the presses while processing other jobs. Graves states that customer awareness of variable printing is growing rapidly.

Build Your Own Buick

Thebault DI, a division of L.P. Thebault Co., of Parsippany, New Jersey, developed a four-part “interactive” newsletter program for the Buick division of General Motors. Thebault DI is a full-service advertising and marketing printer with six- and eight-color sheetfed presses, two Heidelberg GTO-DI direct-to-plate-on-press imaging offset presses for short-run process color, full- and half-size offset web presses, and four Agfa Chromapress digital color presses, which, according to Jac Bloomberg, former vice president and general manager of Thebault DI, are used strictly for printing personalized, direct marketing documents. Bloomberg feels that digital presses are too expensive and slow to use for short-run static printing and uses the GTO-DI presses for such work—adding value with personalization is the only way to profitably sell digital color printing. Bloomberg also stated that “most people who get into digital printing fail to market it properly.”

For the Buick program, Thebault DI used a database generated by EDS, GM’s database service provider, that was delivered ready to run with a few minor modifications such as converting all-uppercase words to upper- and lowercase. No further data manipulation was required and the database was ready to feed into the Agfa Personalizer-X application, used with QuarkXPress to generate variable documents. The first-phase newsletter contained minimal levels of personalization. These were sent to current Buick owners whose cars were from two to four years old, and to selected non-Buick owners based on demographics of age and income: a 35-year-old man with an income of \$40,000 per year might receive a newsletter centered on the Buick Regal, while a 60-year-old woman with an income of \$100,000 might get a newsletter describing a top-of-the-line Buick Riviera. A prepaid reply card was bound into the newsletter, which included questions about the type of car they might be interested in, the color they might like, and available options.

The second-phase newsletter was based upon the response, or lack thereof, from the targeted customer. If there was no response, the newsletter reflected that; if there was a response, Thebault DI took the opportunity for further newsletter personalization, and a second run of newsletters was mailed out along with another reply card where the customer could specify the exact model, color, and options of the Buick automobile that they were interested in. The third-phase newsletter, based on data from returned cards of the second phase, showed the exact model and color specified and had a banner headline of the customer’s surname, the model, and the color chosen, e.g., “The Smith’s Jade-Green Regal.” Additional information such as options and a suggested retail price of the car was also printed on the piece. The fourth-phase newsletter was sent only to those who actually purchased a new Buick. This phase was delivered by two different pieces: one thanking the customer for the purchase and offering a number of coupons that could be used at local establishments, and another that contained a detailed post-sale questionnaire.

This all sounds like a lot of work, but Bloomberg estimates that the entire program netted about a 25% response rate and more importantly, was the means by which Buick sold 7,000 new cars with a \$21 million return on the investment made in the program. Approximately two million total pieces were mailed. It is unclear, however, whether those sales were a direct result of the program, or whether they were also a result of cross-selling from other media such as TV and newspaper ads.

Lufthansa Airlines

Communicating to consumers and travel agents with relevant localized and time-critical information is an essential element to keeping seats filled. But delivering that information is harder than mollifying a bumped passenger. "Information in the airline industry pours in faster than anyone can absorb and disseminate it," says a spokesman for Lufthansa's Quick Response Program (QRP) promotion campaign, "and that includes such mundane information as changing price information, new-flight announcements, special offers, and everything else that drives this business."

Coupled with the crush of data was the need for the German airline to create a greater presence in its ten U.S. gateway cities. Attracting business travelers at these locations is key to filling seats on the highly contested North Atlantic routes, as well as increasing membership in its Miles & More loyalty program. Solution: Create a turnkey marketing program for Lufthansa's promotion coordinators in each of the ten cities that enables cost-effective four-color art execution and material production within 72 hours. The heart of the program is the QRP Workbook, a three-ring binder that each promotion coordinator receives containing organized images of customizable templates of letters, self-mailers, deluxe invitations, postcards, banners, counter cards, and an extensive library of digitized photographs and images.

Each on-site promotion coordinator determines which database to draw from and indicates their graphic, template, and media selections on an order form and writes the copy and headlines for variable boxes. The form is then faxed to Chicago-based Flair Communications, the promotion agency coordinating the campaign, and the Mac-platform Quark templates are modified to each coordinator's specifications. The digital image, once approved by the client, is transmitted or overnighted to a digital printer that merges the database file and prints by Zip-sort sequence on a Xeikon digital printer. Time from order-entry to in-the-mail: 72 hours.

"Lufthansa's bookings and profitability on average for the ten offices was up 44%," according to the spokesman, "which are results we thought would take more than two years. The database, on average, increased 16%. But another boost to the airline is that the QRP has provided a means for each of the ten gateway cities staff to interact one-on-one with air travelers and travel agents," he adds. "The Quick Response Program consistently delivers customized sales material within 72 hours with cost efficiencies while maintaining Lufthansa's worldwide quality standards and corporate graphic imagery. Yet the system is flexible and lets coordinators be creative as well as effective."

Variable Printing for the Apparel Industry

Typical clothing manufacturers turn over 60% of their product line per year. Oswego Print of Portland, Oregon, receives apparel tag orders electronically through a web site, prints the tags, and ships them to an offshore clothing plant, and also prints customized catalogs for apparel manufacturers that are tailored for a particular store. Ric Kimbell, founder and chairman of the Oswego group, a marketing services firm that serves the apparel and entertainment industries, spoke at the Seybold San Francisco conference in September 1998 on the issue of database printing:

First of all, we ask what makes a good variable data printing client? A good variable data client needs to have a large number of products. Someone like Jantzen for example has 35,000 product SKUs [Stock Keeping Unit]. The second thing is they have very short life cycles. This product changes 60% annually. So, you can see they begin to have a problem. The third thing is they have very short development cycles for getting their products to market. This also makes for an ideal client. And, the fourth thing is they have a highly segmented market. They sell to

all strata of dealers from a single mom and pop shop all the way through to J. C. Penney and Sears.

At Oswego, we define variable data as data that changes over time...We do very little one-to-one marketing, but we have an extraordinary base of ever-changing content for our clients. The shorter the time frame, the more variable the data. Variable data is not just direct marketing. Variable data does not change in every pass of the press necessarily. It is information that requires database management of some kind. What makes variable data printing valuable? First, the managing of information for a customer is very valuable to that customer. Almost all of your customers have no idea how to manage visual information. So becoming a visual information manager, we've heard the term media asset management, but somehow managing that data for your clients make you valuable. The ability to focus selling materials to specific customers is valuable. For example, Columbia Sportswear will want to do a catalog specific to J.C. Penney. They'll only want 600 of those particular brochures that have data for each store, actually.

Because of short life cycles, literally by the time a catalog is developed, it's obsolete. So all these things become very important to a client and that's why you can charge much more for variable data printing...You're offering three or four value-added services beyond the aspect of actually printing. Printing is only the result of being involved in these other aspects of their business.

So, how do you attract a variable-data client?

First of all, you need to specialize in vertical markets. We've chosen three. I've mentioned them to you. But you could look at virtually any market that has a lot of products in it. The financial markets, the automotive markets, the appliance markets, all have companies with hundreds and thousands of product SKUs that need to be put into printed marketing materials.

Second, become an immediate expert. At our company we hired people in the apparel industry that had at least 3-5 years experience that understood the sales and marketing problems with the apparel industry, and the same with the consumer electronics market.

Third, you analyze their business. With Jantzen we sat down and for three months we asked what their problems in getting information out were. They found they could design, build offshore, and deliver a swimsuit faster than they could get either a brochure or a hang tag label to go on that swimsuit. So, that was very important to them that they shorten that critical time area to get it to market.

Fourth, the answer's always a workflow solution and not printing. You do not want to be a printer. Printers work on very low margins. What you want to be is someone who integrates themselves very far down into the workstream. At Jantzen for example, we start in the planning production department and monitor it all the way through to a final garment tag. So we're involved in every portion of their business.

Customized Shopping Lists

Many stores now collect customer purchase information at the time of check-out with a "Shopper's Club" card or some other similarly-named program that provides discounts on selected items and allows check-writing privileges. Customers swipe a card in a reader at the check-out counter to obtain the discounts, and the customer's entire shopping list is recorded.

It would be very easy for a supermarket to create a personalized incentive mailer to customers based upon their buying habits; for example, if the customer regularly buys a certain brand of kitty litter, then the store might include a coupon for different kitty litter as an incentive to try a different brand. Several grocery chains have already begun to plan such database marketing programs, but at the same time, customer goodwill might be at risk at stores that require them to sign up for a card to obtain a discount.

It's All in the Details

One of the most successful personalization campaigns involves a bridal registry. Some department stores were discarding the collected data after the wedding, but one held on to it. The registry had the name and style of particular dishware, the name and address of the married couple, the name and address of the gift givers, plus the piece that was given. Thus, the database could be organized to tell what pieces the couple did *not* have.

With variable data software, promotions were developed to the married couple with discounts on the pieces that were missing from their collection. 10,000 mailers went out with a response rate of 8%. This represented a close rate of 100% since only buyers responded—all 800 of them. Each purchased an average of \$252 in product and the program netted over \$200,000. This is a perfect example of how database information and variable data printing can work together for successful direct marketing.

Skeptical Still

Dolly Jackson, director of Development at Whitworth College in Spokane, Washington, gave variable printing a try but has since reverted to her previous fund-raising methods because she didn't see a change in response. Ms. Jackson states:

We had a huge turnover on our staff and didn't have the technical support or the machinery to effectively personalize/merge our fall appeal. Using variable data allowed us to get our pieces personalized on a non-standard mailer. It was more than what a traditional mailing house could do for us.

I don't think the response rate was affected because so many who mail are able to personalize pieces these days. I remember when I first received *Games* magazine and there was a page on the inside of the magazine that had *my* name and address on it (in some advertisement)—it was impressive! Now, I get Publisher's Clearing House with my name and personal information peppered throughout. It has lost its uniqueness.

One thing that my contact at [Ms. Jackson's printer] told me recently is that some clients who have used variable printing to an extreme have turned off some of those to whom they mail. The recipients get concerned that a mass mailer has so much personal information about them—it feels like an invasion of privacy. Before, vendors may have *had* lots of information about people on the mailing list. Now, the recipients *know* how much information vendors have, and *knowing* makes them nervous.

Ms. Jackson's concerns about privacy are current events in the database marketing industry. So far, there have been no market studies about the adverse effects of personalization whether in direct mail or in person at the supermarket. Marketers should proceed carefully as consumer concerns about privacy have become serious issues, which could be a reason why pull marketing is so successful: consumers in pull situations willingly volunteer information about themselves in order to get something; there's nobody collecting personal information about them without their knowledge.

T THE STUDY

We discovered that no objective test had been applied to compare static and dynamic approaches to direct marketing. We found that there were several factors to consider:

1. Static versus personalized promotions: what effect does the incorporation of person or company name have on the response?
2. Static versus personalized promotions with a database connection: what effect does the use of something known about the recipient have on the response?
3. Black and white versus color: does color have an effect on response rates?
4. The effect of discount coupons: does a discount coupon have an effect independent of other effects?
5. Consumer versus business-to-business: are there significant differences in these two areas and do the principles apply equally?

The objective was to compare response rates to determine the effectiveness of these different programs.

In conjunction with a major direct-mail marketing organization, several programs were developed to test various approaches to personalized and database printing. The organization was willing to share their data but asked that the specifics of the programs be kept confidential. Since we felt that real world products and real world people and companies had to be used, this requirement was not onerous. The mailings and response rates were tracked for five months.

Overview of the Study

We decided that we needed two categories: business and consumer. Each has different dynamics and the responses could be compared to test the validity of personalized approaches.

Business to business

A. *Business books and videos*

A database contained data on purchasers of business publications and videos. The static version had a variety of products. The dynamic version incorporated products in one of three categories: marketing, management, and finance based on previous purchases.

B. *Phone services*

A database contained data on cellular phone expenditures. The objective of the marketing program was to convert users to a different plan. The static version had sample rates. The dynamic version used rates based on the recipient's actual usage.

Consumer

C. *Home videos*

A database contained data on video rentals in three categories: western, comedy, and drama. The static version had a variety. The dynamic version only had products based on the recipient's purchasing habits.

D. *Supermarket buying*

A database contained data on products and times of supermarket purchases. The static version promoted a variety of in-store products. The dynamic version analyzed buying patterns and promoted products that related to three areas: baby products, young family products, and health-conscious products.

All materials were professionally designed and produced with digital printing. Static and dynamic pieces were as similar as possible. All had two methods for response: a toll-free number or a postage-free reply card.

The resulting mailings for each of the four categories were:

1. Static promotion. The marketing piece had no personalization. The piece was addressed to a specific individual. Black and white.

2. Name-only personalization. The marketing piece incorporated the person's name. Black and white.

3. Version 1 above in full color. Static promotion. The marketing piece had no personalization. We were curious about the effect of color on the response rate.

4. Version 2 above in full color. Name-only personalization. The marketing piece incorporated the person's name.

5. Dynamic promotion with database connection. Using information about buying patterns, the marketing piece reflected some aspect of the individual's purchasing history. Black and white.

6. Version 5 above in full color. Dynamic promotion with database connection. Using information about buying patterns, the marketing piece reflected some aspect of the individual's purchasing history.

7. Version 1 above with a discount coupon. Static promotion. The marketing piece had no personalization. We were curious to see if a specific discount would have an effect on response rates. Black and white.

8. Version 5 with a discount coupon. Dynamic promotion with database connection. Using information about buying patterns, the marketing piece reflected some aspect of the individual's purchasing history. Black and white.

9. Version 6 with a discount coupon. Dynamic promotion with database connection. Using information about buying patterns, the marketing piece reflected some aspect of the individual's purchasing history. Full color.

The result was nine programs in four categories—36 mailings in all!—and each mailing included 4,000 pieces. Everything was mailed bulk rate as self-mailers. We did not test the effect of mailings in envelopes versus self-mailers.

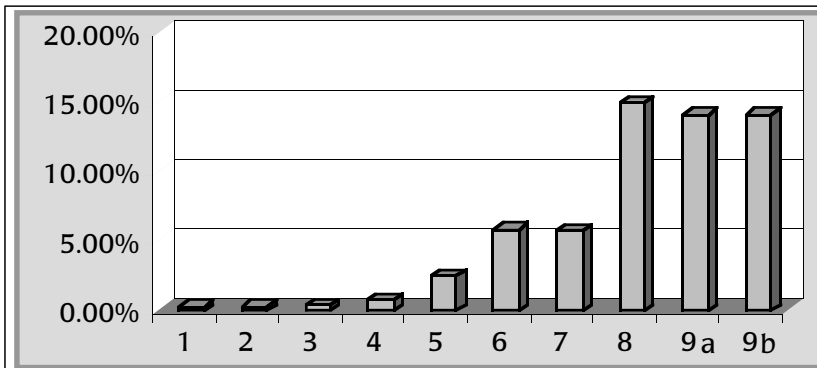
To summarize the various mailings and their characteristics:

	1	2	3	4	5	6	7	8	9
1. Static	X		X				X		
Dynamic		X		X	X	X		X	X
2. Database connection					X	X		X	X
No database connection	X	X	X	X			X		
3. Black and white	X	X			X		X	X	
Color			X	X		X			X
4. Discount coupons							X	X	X
5. Consumer vs. business-to-business	X	X	X	X	X	X	X	X	X

R RESPONSES

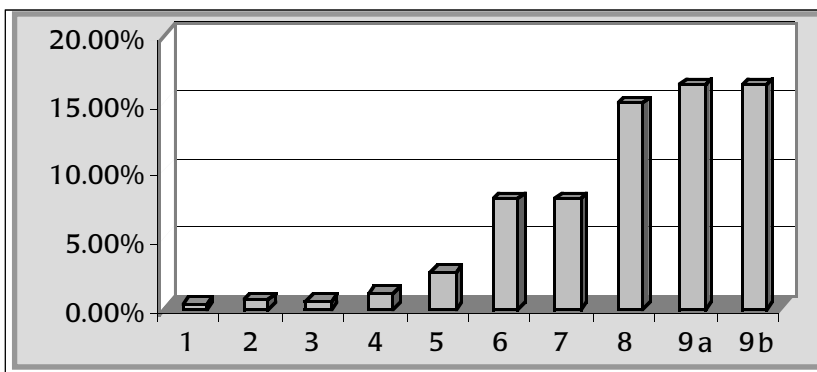
Graphics comparison of responses from the nine programs

BUSINESS TO BUSINESS



A. Business books and videos

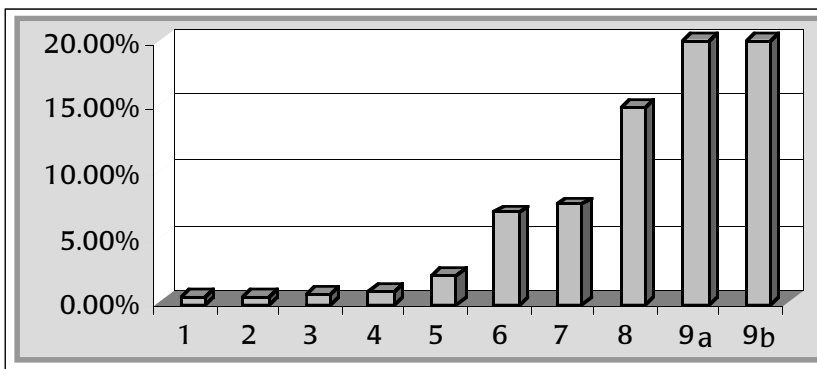
A database contained data on purchasers of business publications and videos. The static version had a variety of products. The dynamic version incorporated products in one of three categories: marketing, management, and finance based on previous purchases.



B. Phone services

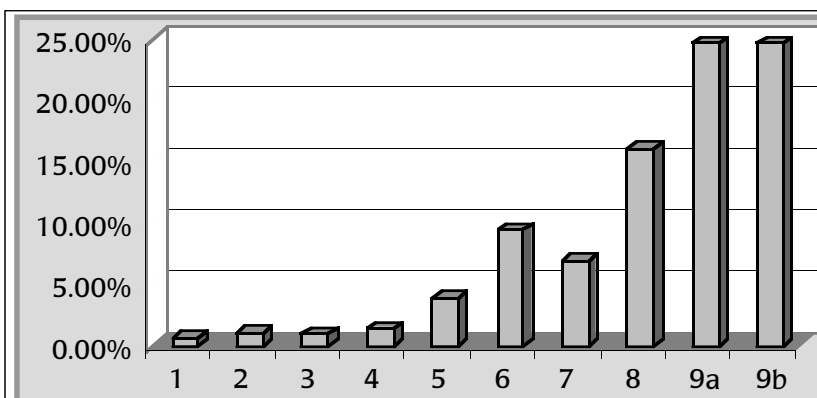
A database contained data on cellular phone expenditures. The objective of the marketing program was to convert users to a different plan. The static version had sample rates. The dynamic version used rates based on the recipient's actual usage.

CONSUMER



C. Home videos

A database contained data on video rentals in three categories: western, comedy, and drama. The static version had a variety. The dynamic version only had products based on the recipient's purchasing habits.



D. Supermarket buying

A database contained data on products and times of supermarket purchases. The static version promoted a variety of in-store products. The dynamic version analyzed buying patterns and promoted products that related to three areas: baby products, young family products, and health-conscious products.

Responses

The programs were designed to elicit an order. Thus, only responses that resulted in an order were counted.

The products promoted were from organizations with name recognition. These products had been promoted previously. The mailing lists used were those developed for the products concerned, using demographic characteristics. The 4,000 names for each mailing were taken from a larger list and represented the geographic nature of the master list, which was generally spread out over the U.S.

Both consumer mailings used a selection from a master consumer list. Both business-to-business mailings used a selection from a master business list. Since the lists had essentially the same characteristics, the variables defined would be measurable.

To make it easier to recall what each of the nine programs was all about, we have used the following nomenclature on the next page:

S	=	Static
NO	=	Name only
D	=	Dynamic (text and images)
BW	=	Black and white
FC	=	Full color
DB	=	Database information used
DC	=	Discount coupons used

A total of 144,000 pieces were mailed, with just over 8,700 responses, which averaged 6.0%. In other promotions of similar products using direct marketing (the marketers felt that they had actually targeted their audiences), the average was about 2.9%. For the consumer mailings the average was 6.4%, and for the business-to-business mailings the average was 5.6%.

A quick review of the data:

Program	Compared Programs	Percent Increase in Compared Programs	Difference
1 S/BW			
2 NO/BW	2:1	44.59%	Name only appears to increase response
3 S/FC	3:1	45.95%	Color appears to have an effect
4 NO/FC	4:2	62.62%	Name and color are even better
5 D/DB/BW			
6 D/DB/FC	6:5	166.74%	Database information is a significant help
7 S/BW/DC	7:1	1425.68%	Just add a discount coupon to a static piece
8 D/DB/BW/DC	8:5	438.11%	Discount coupon with database
9 D/DB/FC/DC	9:6	148.39%	The works

The tabulated data follows on the next page:

Results

	Responses	Percent	Percent Increase in Program Comparison	Program Comparison
B-to-B Program A				
1 S/BW	11	0.28%		
2 NO/BW	12	0.30%	9.09%	2:1
3 S/FC	16	0.40%	45.45%	3:1
4 NO/FC	31	0.78%	158.33%	4:2
5 D/DB/BW	101	2.53%		
6 D/DB/FC	234	5.85%	131.68%	6:5
7 S/BW/DC	229	5.73%	1981.82%	7:1
8 D/DB/BW/DC	599	14.98%	493.07%	8:5
9(a) D/DB/FC/DC	566	14.15%	1725.81%	9:4
9(b) D/DB/FC/DC	566	14.15%	141.88%	9:6
B-to-B Program B				
1 S/BW	17	0.43%		
2 NO/BW	27	0.68%	58.82%	2:1
3 S/FC	23	0.58%	35.29%	3:1
4 NO/FC	49	1.23%	81.48%	4:2
5 D/DB/BW	110	2.75%		
6 D/DB/FC	322	8.05%	192.73%	6:5
7 S/BW/DC	322	8.05%	1794.12%	7:1
8 D/DB/BW/DC	601	15.03%	446.36%	8:5
9(a) D/DB/FC/DC	655	16.38%	1236.73%	9:4
9(b) D/DB/FC/DC	655	16.38%	103.42%	9:6
Consumer Program C				
1 S/BW	23	0.58%		
2 NO/BW	24	0.60%	4.35%	2:1
3 S/FC	33	0.83%	43.48%	3:1
4 NO/FC	39	0.98%	62.50%	4:2
5 D/DB/BW	88	2.20%		
6 D/DB/FC	278	6.95%	215.91%	6:5
7 S/BW/DC	301	7.53%	1208.70%	7:1
8 D/DB/BW/DC	599	14.98%	580.68%	8:5
9(a) D/DB/FC/DC	799	19.98%	1948.72%	9:4
9(b) D/DB/FC/DC	799	19.98%	187.41%	9:6
Consumer Program D				
1 S/BW	23	0.58%		
2 NO/BW	44	1.10%	91.30%	2:1
3 S/FC	36	0.90%	56.52%	3:1
4 NO/FC	55	1.38%	25.00%	4:2
5 D/DB/BW	155	3.88%		
6 D/DB/FC	377	9.43%	143.23%	6:5
7 S/BW/DC	277	6.93%	1104.35%	7:1
8 D/DB/BW/DC	644	16.10%	315.48%	8:5
9(a) D/DB/FC/DC	988	24.70%	1696.36%	9:4
9(b) D/DB/FC/DC	988	24.70%	162.07%	9:6

NOTE: The "Percent" column represents the base response from the mailing of 4,000 pieces.

Conclusions

- 1** The most basic mailings (static, black and white) had a response rate that averaged 0.46% – which was under the so-called industry standard of 1%, but may be closer to an industry average.
- 2** Adding a **name only** to the piece—a basic level of personalization—increased response rates by 44% over the Program 1 static, black-and-white mailing. There is anecdotal information that adding a name to a mailing no longer has the power it once had. In this test, at least, it did have an effect.
- 3** Adding **full color** increases response rates by 45% over the Program 1 static, black-and-white mailing. It was surprising that this level of response was so close to the personalization level of response, but even more surprising that color alone could have such a positive effect.
- 4** Adding **name only** and **full color** increased response rates by 135% over the Program 1 static, black-and-white mailing. Personalization and color appear to be a double whammy and produce a significant increase in response.
- 5** Applying **database** information in constructing the offer and the piece increases response rates by over 500% over the Program 1 static, black-and-white mailing. Tying the mailing into something you know about the recipient—past buying habits being the most common—appears to provide a significant benefit. The database information should be used in such a way as to not threaten the recipient’s privacy.
- 6** The addition of a **discount** to the mailing has a positive effect. In Program 7 we added a discount coupon to the static, black and white Program 1 piece response rates jumped by over 1,000 percent. This is an area where more research needs to be done. Would discounts alone create the volume of responses without the other attributes? We are not sure.

In comparing mailings with discounts, one can see the effect of this one variable.

	Program	Programs Compared	Difference
6(a)	S/BW/DC	7:1 <i>Program 7 was compared with program 1: S/BW</i>	1425.68%
6(b)	D/DB/BW/DC	8:5 <i>Program 8 was compared with Program 5: D/DB/BW</i>	438.11%
6(c)	D/DB/FC/DC	9:6 <i>Program 9 was compared with Program 6: D/DB/FC</i>	148.39%

You can see in 6(a-c) that the only variable was the addition of a discount coupon. More interesting is the fact that “the works” did not have a more significant effect.

It was also interesting that the responses followed a similar pattern through all four categories. We would have expected some deviance between consumer and business-to-business markets.

What does this mean to the printing industry?

It means that print buyers, especially for direct marketing materials, will increasingly demand variable data printing in full color. Although some of the printing may be done with traditional offset (“shells” for later imprinting), the level of variability required can only be done with true digital printing. All of our tests used 400-600dpi toner-based printing. In our opinion, the digital printer/press will co-exist next to the offset press.

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This study is ongoing. Corrections and updates will be published in the Digital Printing Report as they become available. The Digital Printing Report is published by the Digital Printing Council. For information about the DPC, please visit www.printing.org/DPC/main.htm, e-mail jvinyard@printing.org, or call Joanne at (703) 519-8170.

