

Demand Drivers for Printing Paper

Rapid technological change in the printing and graphic arts industries means paper manufacturers need to explore new ways to create value for their print customers.

By David Pineault, John Shane, Barb Pellows, Jim Hamilton, and Steve Adoniou

The graphic arts industry in the mature markets of North America and Europe are in the midst of a radical transformation. Due to a variety of “trigger” events, the print industry has been able to significantly alter the way it does business in a several key ways. Chief amongst these has been the development of digital technologies, including the internet. The digitization of print has radically changed manufacturing and customer expectations through shorter run-lengths, leaner supply chains, personalized print, shorter turn-around, higher levels of complexity, more use of color, and, higher levels of transparency.

The print industry of the future will be characterized by a migration of the document back to the enterprise and will feature highly personalized, color content. Print service providers will continue to consolidate and offer a broader range of services in more diverse geographical markets.

In emerging markets such as the so-called BRIC countries (Brazil, Russia, India and China), the future of print will be driven by population growth (and, urban population growth in particular), rising household incomes, the devel-

opment of a consumer class and the further deregulation of print media delivery vehicles.

One off-shoot to these macro-trends will be rapid growth in advertising expenditure as retailers attempt to lure consumers to their brands, products and services. Paper consumption will also receive a boost from the general rise in business activity and the accompanying expansion of transactional and business communications documents. Paper usage is forecast to rise slightly faster than overall GDP growth in these economies over the next 5 – 10 years due to a proliferation of transactional, direct mail, magazines, catalogs, and various business communications documents.

PRODUCT INNOVATION IS KEY

The global paper industry is undergoing a rapid transformation. The North American and, now, the European industries are witnessing an unprecedented wave of consolidation and capacity rationalization. Companies that were once diversified all along the industry value chain have divested non-core assets, sold timberlands and reorganized bloated corporate

structures. Globalization is also accelerating and the activity is going both ways. Producers in mature markets are investing in geographical diversification in emerging markets not only as a way to reduce operating costs, but also to take advantage of rapid demand growth and to be closer to their customers. Meanwhile, manufacturers in emerging markets are reviewing distressed assets in North America in their never-ending search for sustainable fiber resources.

Product innovation, in response to technological change in the printing and graphic arts industries, is expected to be a distinct feature of the paper industry's continuing transformation. As manufacturers learn to cope with declining demand for their products they will have to create new ways to provide value to their print customers. This will involve more partnering all along the value chain from document solution, manufacturing, distribution to final consumption.

The rising complexity of the print job including the increased use of color, variable data, and, print-on-demand will require a change in strategy. The past few years has seen the introduction of technology-specific paper brands such as laser and inkjet product lines. More recently, manufacturers have introduced product lines that are compatible in both offset and digital environments, thereby simplifying the supply chain for their print customers. Either way, innovation, automation, and, digitization will be unifying themes across developed and developing markets.

HIGHLIGHTS

- Global paper volume growth will moderate over the next decade
- Digital monochrome work will decline while digital color will experience brisk growth
- Offset printing will enter a period of decline in the next decade after being the dominant technology in the past decade
- Transaction documents will enter a period of decline in the next decade
- Direct mail will continue to experience growth in the next decade, albeit at a reduced rate from the previous decade
- Geographic focus in the print industry will shift from local to national and international markets
- Document creation will involve more personalization, more color and more control by the document owner



Product innovation, in response to technological change in the printing and graphic arts industries, is expected to be a distinct feature of the paper industry's continuing transformation.

NORTH AMERICA AND EUROPE

Demand for printing paper in the mature markets of North America and Europe is expected to show little to no growth over the next several years. In fact, several grades in the North American market are forecast to continue a period of decline that began in earnest in 2001. The penetration rate of many printing paper products in the general economy began to decline in the late 1990s and this trend has accelerated in the past few years. In North America, for example, the usage rate of uncoated freesheet has fallen from about 1,800 tons per billion dollars of GDP in 1988 to approximately 1,100 tons per billion dollars of GDP in 2006, representing a loss of about 40 tons per billion dollars of GDP per year during this time. European usage rates, while somewhat lower, have experienced a similar downward trend.

There are several factors underscoring the uncertain outlook for uncoated freesheet in general and printing papers in particular in these markets. For one, consumers in developed economies are bombarded with marketing messages from a variety of channels each day. This generates an enormous amount of information and complexity for consumers already strapped for time. Consumers now only seek what they need when they need it. They actually want less information!

Electronic media is another major competitor eroding the demand for printing paper. As mentioned above, fewer transactional documents are expected to be printed in the future than is the case currently as consumers opt to receive this information via e-mail or over the internet for electronic storage. Rising postal rates in the United States over the past few years is only expected to accelerate this trend. Furthermore, as visual display technology increases, there will be a growing acceptance toward reading and editing work-in-progress on the screen (such as this author is doing now). The uncoated freesheet sector is also expected to experience “in kind” substitution from coated cut size papers and groundwood “hi-brite” alternatives in certain applications.

There will be bright spots however. Direct mail marketing communications are expected to remain a core component of retailers’ and marketers’ multi-pronged marketing effort. Survey data shows that a majority of consumers prefer direct mail over other methods as a way to receive information about products and retailers’ promotional activities. As these communications become more personalized and relevant their effectiveness is only expected to increase. Moreover, as color communication gains headway over monochrome, response rates are expected to rise. Other factors positively affecting the print industry are on-demand printing, variable data format, “transpromo” (a personalized, promotional message printed directly on the transaction document, usually in color), and, the introduction of new technologies. Paper manufacturers will want to align their own product innovations to take advantage of these developments.

PRINT TECHNOLOGY

Production Color Inkjet. 2008 will be a big year for high-speed, high-volume, roll-fed inkjet product roll-outs. This will ultimately have an impact on cut-sheet digital and offset volumes as the speed, productivity, quality, media latitude, and cost-of-operation of this new generation of products gains the attention of print service providers. Many of these devices are first-generation product roll-outs and are just entering the market. As such there will likely be glitches and delays associated with them. Nevertheless, the impact will begin in 2008 and will grow stronger through the following years.



2008 will be a big year for high-speed, high-volume, roll-fed inkjet product roll-outs. This will ultimately have an impact on cut-sheet digital and offset volumes.

Hybrid: Not Just for Cars. While the printing sense of the word hybrid doesn’t refer to higher gas mileage in electric/gas hybrid automobiles, it does have important implications for the printing market. By hybrid, we are talking about printing processes that take advantage of two technologies—in the most likely case this would be inkjet and a conventional printing technology such as offset.

The simplest example of a hybrid document is a one that uses a pre-printed shell (often printed on an offset press) that is overprinted with variable data using a digital output device. These processes can occur separately and don’t have to be in line. One of the areas of growth, however, is in processes where this does happen in-line.

TRANSPROMOTIONAL DOCUMENTS

The TransPromo Revolution. Over the past two years, a combination of new technologies, postal changes, and market conditions have created an environment in which transaction documents such as statements, invoices, and notifications can be used effectively to generate sales and long-term relationships. Companies are starting to use these communications to create ongoing, sustainable customer dialogues that promote products and services in addition to communicating transactional information. This transition is being coined the “TransPromo revolution,” and it is resulting in the use of more attractive, personalized, easier-to-understand statements that encourage buying and other desired behaviors such as consumer responsiveness and brand loyalty.

TransPromo refers to a transaction document that consists of a promotional message that is positioned alongside essential

transactional information. While it is true that businesses have been using statement inserts for promotional purposes for over 60 years in an approach that could be described as transpromotional, the benefit of those inserts has declined as their novelty has worn off. In fact, research suggests that many recipients of traditional transaction documents simply open that mail over the recycling bin and dispose of inserts without even looking at them.

Marketers can now provide marketing messages in a manner that has been proven to attract maximum attention and drive higher levels of action. These marketing messages can be just as personal and relevant as the transaction documents in which they are implemented. As messages become more relevant, the likelihood that the recipient will demonstrate the desired behaviors increases. As a result, statements are now often viewed as revenue-generating devices rather than operational documents representing an accepted cost of doing business. Proven ROI will be a key to the success of the transpromo document.

Fortunately, the rapid development of integrated digital workflows will facilitate ROI measurement.

Key TransPromo Drivers. The TransPromo market is poised to explode. InfoTrends' research indicates that the TransPromo full color digital output for North America was 1.62 billion equivalent images in 2006. We forecast this value to increase at a CAGR (compound annual growth rate) of 91% to reach nearly 22 billion images by 2011 and to grow at just a slightly reduced rate (CAGR) over the ensuing five years to 2015.

This growth will be driven by advances in digital printing equipment in terms of speed, cost, quality, and continued market adoption as organizations seek to exploit technology to drive loyalty, brand recognition, and profits. There are four key drivers that make right now the perfect time to adopt TransPromo:

- The need for better ways to reach customers
- Advances in technology
- Changing postal regulations
- Market conditions that are transforming transaction documents into marketing vehicles

TRENDS IN RETAILER'S PRINT NEEDS

According to a recent research, retailers are increasingly using the Internet to research potential suppliers, proof print jobs, and collaborate with vendors and subcontractors. Roughly 10% of print spending is accomplished via the Internet in retail firms. This figure is expected to grow to 15% or more over the next two years with further advancement beyond for applications such as office stationery, newsletters, brochures, flyers, and sell sheets.

Retailers are also more willing to purchase marketing collateral such as direct mail, large format documents, shelf

talkers, and other point-of-sale materials via the Web. These materials are more frequently being versioned and/or customized with targeted messaging for specific audiences based on known buying habits and demographics. Because these targeted communications are typically produced on demand in shorter runs, many document owners are willing to purchase them through the Web, and they make ideal Web-to-

print applications. This is significant, as marketing collateral accounts for nearly 44% of print spend in the retail industry. The retail industry represents a substantial opportunity for print service providers and

paper manufacturers over the next 5 – 10 years. Not only do retailers need promotional and point-of-purchase printing, but they also print applications such as training materials; transactional documents, packaging, labels, and tags.

NORTH AMERICAN AND EUROPEAN OFFICE PAPER CONSUMPTION

Our primary research and economic modeling clearly indicates a decline in paper consumption for nearly all devices. The only exceptions to this general rule are high-end shared color copiers and color laser printers. In our most recent research, office workers are clearly expecting to use less paper per machine, whilst previous years' research indicated expectations for growth. This shift is likely due to an increasing familiarity with and acceptance of reading and editing on screen. In addition, many companies are implementing cost-saving practices such as duplex printing or limiting certain kinds of usage.

Finally, consumers are increasingly opting to receive statements and bills via the internet and, typically, also opt to store that information electronically rather than print it at home. Older generations may prefer the paper "back up," but younger people are more trusting of and confident in electronic data storage.

The forecast calls for cut size page consumption in the U.S. market to grow from 1.56 trillion pages in 2007 to just 1.62 trillion pages by 2011 for a CAGR of only 0.8% during this time. Consumption is expected to continue to grow by less than 1% per year for the foreseeable future.

Consumption of cut sheet paper in Europe is expected to experience the same trend growth over the short and medium term. Consumption is expected to advance from 516 billion pages in 2007 to 543 billion pages in 2011 with similar growth rates thereafter.

TransPromo refers to a transaction document that consists of a promotional message that is positioned alongside essential transactional information.

EMERGING MARKETS

Demand for printing papers in emerging markets is expected to experience robust growth over the next five to ten years. As mentioned at the beginning of this article, the principal drivers for this growth are rapid population growth, especially in urban centers; rising disposable incomes and the concomitant expansion of a consumer class; media deregulation; technological change; rising use of PCs and the Internet; the development of a brisk and vibrant marketing culture; and, an increase in the overall level of commercial business activity. Another major driver will be the presence of a healthy and active postal system.

The pace of development in the printing and publishing industry is expected to follow the general contour of economic and social development. Several broad-based indices that are used to measure economic and social progress include economic freedom, political freedom and corruption perception. While every developing country has their own idiosyncrasies, as a general rule, these countries score low on virtually every measure of social and economic progress. The political freedom index in Brazil and India are notable exceptions here. The trend is, however, overwhelmingly positive and a source of encouragement and optimism for residents and those seeking to do business in these countries.

While estimates vary, cut size paper consumption in the developing world is expected to advance at a 5% CAGR over the 2007 – 2015 period. At this pace, cut size pages will total an estimated 1.46 trillion pages by 2011 from a base of 1.2 trillion pages in 2007. In tonnage terms (20 lb basis), this translates into growth of nearly 1.3 million tons of new cut size paper consumption over the five years.

As is typically the case with developing economies, one of the most burning questions about the growth in the consumption of printing paper is whether or not these societies will “leapfrog” certain technologies. For example, given the proliferation of digital technologies, it really makes no sense for developing markets to install analog-based systems. Similarly, if hybrid automobile technology succeeds and prices become competitive, consumers in congested urban areas may skip fossil-fuel based cars. In Russia, for example, using the mail system to deliver transactional and marketing collateral is unheard of (Widrick and Cost, RIT, 2006). This raises some doubts about the development of direct mail and the future of print-based marketing in Russia. Our view is that, technology-driven “out of kind” substitution pressures notwithstanding, the rapid pace of income growth,



improvements in living standards and the concomitant demand for information will create demand for print media in its various forms.

CONCLUSION

The evolution of the printing industry will very much be a “tale of two worlds” over the next decade. The mature markets of North America, Europe and Japan will be characterized by slow growth and even decline, depending on the particular end-use. The growing prominence of personalized marketing communications in color will, perhaps, be the principal driver of printing paper demand in these markets over the foreseeable future. However, that will not necessarily translate into new paper demand but, rather, a shift in focus from offset to digital and from “plain” paper to multi-purpose and technology-specific brands.

In contrast, the developing world will exemplify growth that will be in line, and in some cases exceed, GDP growth. Moreover, consumption of printing paper will continue to advance as export-led economic development strategies give way to more domestic-driven growth. Finally, the developing world will benefit from those who have gone before them and can be expected to be early adopters of proven technologies such as digital printing, on-demand, color (where affordable) and software-driven document solutions. ■

David Pineault, John Shane, Barb Pellows, Jim Hamilton and Steve Adoniou work for InfoTrends. For further information on printing paper trends, contact David Pineault at 781-616-2100 ext. 172 or by email David_Pineault@infotrends.com.