Strategic Partnerships Help Commercial Printers Transition to New Markets

New business opportunities in labels and packaging, sign and display, and other types of specialty printing

A White Paper

by Richard Romano, Senior Analyst, WhatTheyThink

Sponsored by:

ESKO✲

WhatTheyThink?

Abstract

Commercial printers are increasingly seeing new business opportunities in high-growth applications such as labels and packaging, sign and display, and other types of specialty printing. But transitioning to those kinds of printing applications presents numerous challenges, from understanding the hardware, software, and production requirements to the dynamics of unfamiliar markets. Hardware and software vendors like Esko are uniquely positioned to offer printing companies guidance in expanding in these new directions.

Introduction

In the early 20th century, when much of the printing industry was centered in large urban areas like New York City in the U.S., it was common to find entire "graphic arts buildings," multistory edifices that contained a number of different but related businesses: a typographer in one office, a color separator in another office, a print broker in yet another, a commercial printer, a finisher, and so on. They all tended to share work with each other, but perhaps more importantly, they would also share intelligence with each other. There was an "intranet" of sorts: the freight elevator, which was used to pass work from business to business. They all knew each other's business, and they all worked together, almost as partners, in a way.

All things must pass, as the song goes, so as print businesses became more successful, they tended to become more independent and guarded about their operations. The ersatz partnerships ended, and the interconnectedness and sharing of jobs and experience was lost. Sure, printers still sent work to trade services like binderies, but it wasn't like the old days.

Those weren't the only "partners" that printers had, of course. Equipment—aka press—manufacturers also served as great fonts of knowledge for print businesses. Today, as the industry continues to change in ways we have not seen before, partnerships are needed more than ever to help printers transition away from declining traditional commercial work into more high-value, in-demand, and high-growth markets, such as packaging and labels, signs and displays, or other types of specialty printing.

The Way We Are

Here is the story so far.

Back in the early 19th century, nothing was more important than the mail. In the U.S., mail, was delivered seven days a week—even on Sunday. In the U.K., Rowland Hill's introduction in 1840 of the idea of prepaid postage and the so-called "Penny Post" (prior to that, postage was paid for by the recipient and receiving mail was a considerable expense for both individuals and businesses) generated a surge in the use of the mails and is believed to have provided the impetus for the development of the railways and helped stimulate business across all industries and markets.

By end of the second decade of the 20th century of the, however, the bloom was off the rose and mail volumes had begun dropping. Why?

In 1844, the first telegram was sent. This was a major revolution in communication and thanks to the advent of Samuel Morse's telegraph, people—businesses, especially—relied less on the mail. Over the course of the 20th century and the first decade and a half of the 21st, the steady stream of revolutions and evolutions in technology continued to erode the reliance on print-based communications. The telephone, motion pictures, radio, television, email, the Web, mobile and social media—they've all taken a toll on the demand for print.

This is an old story, oft-told in the industry, and we've heard all this a million times before, so there's little need to reiterate much of it here. Suffice it to say, on an inflation-adjusted basis, the commercial printing industry has declined by 45% in less than 20 years.

WhatTheyThink?

Ultimately, the general commercial printing industry today has been experiencing three major trends:

- The growth of electronic alternatives to print
- Consolidation
- Migration to digital

It is tempting to see these as severe challenges, but they don't have to be. Every challenge represents an opportunity if you can see and take advantage of it. The first two are beyond the scope of this white paper and have been well-covered elsewhere, but the third is worth pursuing in some depth.

No One Goes It Alone

Modern telecommunications—which has impacted the demand for print throughout the world—can be traced to late 18th-century France and an inventor named Claude Chappe (1763–1805). In 1792, Chappe developed the first practical semaphore system. Although it's common to think of semaphore as communication by signal flags waved by hand,[1] Chappe's system comprised towers that used large rods and moveable shutters to convey messages—viewed by telescope—from one tower to another. It was kind of a "mechanical Internet," although that term was not in use at the time, obviously. The term Chappe did coin in creation to his system was in fact "telegraph." It was successful, and eventually was implemented across Europe. Most notably, Napoléon adopted Chappe's system and used it to help move his armies and build his empire.

But if you ask just about anyone, "Who invented the telegraph?" though, they'll likely tell you "Samuel Morse." However, this picture that many people have of the lone inventor, beavering away in his or her garage or basement, is at odds with the way technology actually progresses—or in fact how many businesses are created. The concept of the telegraph had existed for at least 50 years before Morse. Sending messages electrically was a hot area for research, and an early prototype appeared in 1809. The first installation of a working telegraph, which had been invented by William Fothergill Cooke and Charles Wheatstone, was by the Great Western Railway in the U.K. in 1838.

Morse himself was not an inventor by trade, or even a scientist of any kind. He was a professional portrait artist, and it wasn't until well into middle age, after witnessing Charles Thomas Jackson's experiments in electromagnetism, that the idea of a telegraph started to take shape.[2] Morse greatly desired to be the sole inventor of the telegraph, but even his final patented system owed a great deal of debt to the work of others—physicist Joseph Henry and machinist Alfred Vail, to name two who contributed directly to his invention. Even the eponymous Morse code was co-developed with Vail.

The lesson here is that no one works in a vacuum (except maybe astronauts…) and that any successful invention—or, indeed, any successful business—is the result of collaborations and partnerships. They can be official business partnerships, but more often than not they take the form of advice as well as access to new technologies.

The printing industry has always relied on partnerships, whether it be with prepress businesses, trade

[1] And some of us immediately think of the Monty Python sketch, "The Semaphore Version of *Wuthering Heights*."

[2] Not to go too far off-topic, but the reason Morse became interested in telegraphy at all was that, while he was in Washington, D.C., on a portrait painting assignment, his wife—back in New Haven, Conn.—had taken ill and he was unable to get timely updates on her condition. He only received the news of her death by mail some days after the event. Thus began his interest in—nay, obsession with—faster long-distance communication.

WhatTheyThink?

typographers, color separators, postpress/bindery businesses, and so on; remember the old freight elevator? If there is any change in this dynamic today it is merely that the businesses make effective partners for printers has changed. Those new businesses are, more often than not, hardware and software vendors. This is because the growth areas for print are being driven by new technologies and who better to advise printers on how to get the most out of these technologies than the companies that actually make them?

Growth Areas for Print

If you go to virtually any printing industry trade show these days—from FESPA to SGIA to Graph Expo to DRUPA—you'll find ample, demonstrative proof that there are substantial growth areas in the printing industry. That growth is not in the largely commoditized offset or otherwise long-run print work that had been the bread and butter of the industry. Today, it is about looking to specific niches and specialty print product areas. We can identify three primary growth areas:

- Small-format digital printing
- Wide-format, signage, textiles, and other forms of specialty graphics
- Labels and packaging

Small-Format Digital Printing

Toner- and now inkjet-based printing technologies have opened up new opportunities for commercial printers. The twin drivers of shorter runs and customization/personalization have transformed the approach to print. Printers have even found opportunities in short-run, customized publications, like books, newspapers, and even magazines. All of this is driven by not only print engines but also front ends and software that can process the data needed to make true personalization possible. For example, look at the photo book market. This is a completely new market that emerged solely due to digital printing and the ability to make a 100% personalized, full-color printed hardcover book, produced in a run length as low as a single copy.

Wide-Format and Specialty Graphics

Posters, banners, signage, and other large-scale graphics have become perhaps the hottest market(s) in the industry today, especially as the traditional barriers to entry—expensive, hard-to-run equipment and limited substrate choice—have largely been overcome. There are wide-format printers available in virtually all segments of the market, from inexpensive entry-level devices that cost a few thousand dollars, to very high-end flatbed units that can run into the millions. Devices can print on virtually any substrate, with UV flatbeds capable of printing on rigid substrates and even 3D objects like smartphone cases, guitars, golf balls—you name it. This has opened up specialty printing—and even industrial printing—to commercial printers especially as two of the big drivers are shorter runs and customization.

—continued from previous page

Solution

The company has invested in Automation Engine, FlexRIP, and FlexProof, along with i-cut Layout. The intent has been to automate all of the production and to connect Automation Engine to the MIS system, building one complete order process. *i*-cut Layout and the automated *i*-cut functionality are being installed for the entire wide-format workflow. All of the operators are learning about new equipment. The intent is that the new production system will help Ironmark grow even faster.

Results

Ironmark is already using Esko Automation Engine to drive its commercial print workflows. The integration of normal production tied into MIS will begin in March. Automation Engine is sending files to FlexRIP to create TIF files for the platesetter and PDF files for their Epson 9900 proofing systems.

Wide format has been in production for many years, but Ironmark has recently added the *i*-cut Suite modules. The company is positioning itself for the future. For example, they do not have a digital finishing table yet, but have purchased the software to prepare for it.

"Esko's Automation Engine and the *i*-cut Suite workflow offer Ironmark expandability. Our company has many areas where we are expanding our capabilities, and Esko solutions offer all the tools we need to do so."

—Jack Thorpe, Senior VP

WhatTheyThink?

Labels and Packaging

I'll give you three guesses as to what the major trends in labels and packaging today are, but you'll only need two: yep, short runs and customization. High-speed digital systems, both toner and inkjet, are opening up opportunities for short-run and customized label runs, and if you have been to any kind of store lately, you know that consumer product manufacturers are increasing the number of SKUs (stock keeping units), representing different varieties of basically the same product. Look at how many different types of toothpaste there are, for example. Increase SKUs mean shorter runs of each particular package and package design. This is where digital has its advantages, and short-run labels, package prototypes, short-run corrugated, and other applications are growing.

It is worth identifying the basic underlying consumer trend that has been driving the printing industry toward shorter run lengths and customization/personalization: people no longer want to be seen as mass consumers but as individuals with their own specific needs and preferences. Brand owners and in turn retailers identify extremely narrow market segments and bring to market a product (and thus a package) for each segment. As a result, run lengths decrease and package variations increase.[3]

This is a bit of a chicken-and-egg discussion[4]: which came first, digital printing or highly narrow segmentation? I would argue they both developed in parallel—digital printing on one side and one-to-one personalization on the ecommerce side (à la Amazon)—and, like parallel lines in non-Euclidean geometry, met.[5] And a lot of this narrow segmentation and personalized marketing/printing is done simply because brand owners can do it. Like the answer to the age-old question, "why climb a mountain?"—"because it's there"—the answer to "why segment so narrowly?" could very well be, "because we can."

The Way We Are Becoming

You'll probably not find a more unlikely business transformation than Samuel Morse successfully transitioning from portrait painting to developing the electric telegraph. In some ways, it's reminiscent of the old Monty Python sketch about the accountant who wants to become a lion tamer. Such transitions require whole new types of skill sets[6]. Commercial printers have it somewhat easier when it comes to moving from one type of printing to another; all printing is essentially about putting ink on a substrate. As a result, moving into new types of print markets isn't entirely like journeying to a foreign land. That said, each of these new markets does have its own internal dynamics in terms of technology and approaching the market.

Opportunities and Challenges

The three growth areas identified above are all quite disparate, and it would be a challenge indeed for any one company to decide to branch out into all of them. And even within those growth areas, many niches abound, all of which—again—have their own dynamics. How to choose what specifically to pursue is beyond the scope of this white paper, and in fact could be an entire book in and of itself.[7]

Speaking generally, however, there are two fundamental ways of going about expanding into new areas. The first could be summed up as "buy first and ask questions later" approach. The notion that "if you build it, they will come" may apply to preternatural baseball fields,[8] but not necessarily to anything in the real world. Still, there have been many printers who have said "I think it would be fun to own a vehicle-

---

[3] Not to drift to far afield, but there is a limit as to how personalized packages can be, and effectiveness will obviously be a function of what the product is. Coca-Cola had great success with personalized Coke bottles, but it's doubtful whether something like Preparation H, for example, would have similar success with personalized packaging.

[4] And there are printers that can print directly on eggs.

[5] Today's notions of customization, personalization, and one-to-one marketing is a direct descendent of the old mail merge, which dates from the early days of word processing but technology kept it confined to basic "Dear Mr. Smith"-type personalization rather than what we know as variable-data printing today.

[6] And more than just a hat that reads "Lion Tamer" on it.

[7] And, in some ways, has already. Check out the new book by Dr. Joe Webb and Richard Romano, *This Point Forward: The New Start the Marketplace Demands*, http://www.amazon.com/This-Point-Forward-Marketplace-Demands/dp/1502327031/.

[8] If you have seen the hit 1989 movie *Field of Dreams*.

WhatTheyThink?

graphics business," as an example, and invested in all the right stuff and set out to become the best darn vehicle graphics printer out there. And, to be fair, often due to sheer force of will, many have succeeded.

However, for the run of the mill print shop, that's a serious gamble. So companies that have successfully transitioned to wide-format, specialty printing, packaging, and so forth started with their own current customer base, asking what specific needs beyond what they already have printed they require. If a customer is a restaurant, and you print their menus and other small-format marketing collateral materials, maybe they also have a need for indoor and outdoor signage, or indoor posters advertising their specials. Maybe they want to advertise on billboards or other signage. Perhaps they even want to investigate installing dynamic digital signage.

The point is, as you're investigating new products and services, see what your current customers could use. Then, thoroughly research those applications. What equipment is required? What other capital investments may be needed? Are there any other barriers to entry you should know about, such as what we could call "knowledge barriers"?

Knowledge Barriers
Knowledge barriers are challenges specific to a given niche, and often exist outside the production process itself. Knowledge barriers can include things like navigating regulations that concern a particular product niche.

If you are looking to get into packaging, or specifically packaging for food, pharmaceuticals, or cosmetics, you may have Food and Drug Administration (FDA) regulations to contend with, which specify what types of inks and substrates can and can't be used for packages for these types of products.

If you are looking to expand into interior wayfinding signage—a high-margin market—you will need to be conversant in the Americans with Disabilities Act (ADA), an oft-changing set of regulations that control size, placement, and Braille translations on interior signage.

If you are looking to get into exterior wayfinding, you will need to navigate various municipalities' codes regarding external signage, which can be quite strict (in many places, an exterior sign can't be more than 10% the total area of the building façade on which it is installed), depending upon the community.

And so on.[9]

These may seem like barriers to entry, and in a way they are, but acquiring this knowledge base gives one company a competitive edge over another. It may sound daunting, but it's not very far removed from, say, a direct mail or periodical printer understanding postal rates and regulations and keeping up with changes to them. It's what adds value to a company as a service provider. Or as a partner.

By understanding not just the printing technology, the dynamics of the market, as well as the various ancillary regulations or other concerns, you become more of a strategic partner for your customers than merely a service provider performing a task. You increase your value to clients and makes them less likely to shop around for a better deal on what may very well be a commodity item.

Production Requirements
Regardless of what knowledge barriers there may be, there are also some specific production issues that will need to be mastered. Some are pretty obvious: understanding what inks will work on which substrates, whether some sort of pretreatment is required, and so on. These are a little bit more advanced than Printing 101, but not too much. Think of it as Printing 102. That is, if you have a UV flatbed printer and want to print on a wide variety of physical objects, you need to know all about surface energy and dyne levels, maybe not at the Ph.D. level, but enough to know that printing on glass will be a bit different than printing on wood.

---

[9] These are U.S.-specific examples, but other countries will have their own counterparts, or even other types of regulations. For example, some countries in Europe are looking to ban certain plastic substrates, which has led to soft signage and other textile printing being a hot growth area there.

WhatTheyThink?

There are some other considerations to take into account, as well, that make these new kinds of printing very different than putting ink on paper. Packaging in particular raises some unique challenges. Such as:

3D visualization: In traditional graphic design, clients are often shown rough conceptual mockups that were then signed off before the detailed design work was done. So, too, when it comes to packaging and other types of three-dimensional printed materials. Being able to show customers designs using 3D visualization is an important part of the design and production process.

Structural design: Likewise, such projects like packaging and displays (such as POP displays) that have multiple panels or parts require structural design software. Just as InDesign and QuarkXPress are used to design 2D printed materials, so, too, is a corresponding tool needed to design these 3D materials.

Workflow: Whether you're working in 2D or 3D space, a workflow automation system has become an absolute necessity today. Most printers already have some kind of automation, which becomes the only way to efficiently move jobs through the shop with, as the phrase goes, "as few touches as possible." In many cases, it's also not just about efficiently moving jobs, it's about efficiently moving an ever-increasing number of jobs through the shop.

Wide-format production has its own demands and as a result requires a compatible workflow automaton system optimized for the various stages of wide-format production: wide-format-specific preflighting concerns, contour editing, optimized nesting, and other issues.

Collaboration: Complex projects often have complex workflows, and part of that complexity can involve enabling and managing collaboration. Largely gone (or in the process of going) are the days of emailing or FTPing files back and forth. Today's collaboration increasingly takes place in the cloud, enabling real-time, dynamic collaboration. How to integrate this into a production workflow can be a challenge.

Finishing: Traditional small-format printers are no strangers to finishing, even if it's only just cutting a large sheet down to size, or trimming out ganged-up business cards or postcards. New, high-value print applications like wide-format and packaging can require more elaborate finishing processes. But even if it only comes down to cutting and trimming, wide-format prints, by their very nature, require larger cutting capabilities than your basic guillotine cutter. And today's cutters may also need to cut through thick, rigid materials, cut contours and shapes, and integrate with the production file that tells the cutter where and how to cut.

Vendor Relations and Partnerships

The story about Samuel Morse and the invention of the telegraph cited at the beginning of this white paper illustrated how transitioning from one type of business to another very often—if not always—requires partnerships in order to work effectively, or at all. Effective partners bring knowledge and experience to a business relationship. If you want to build an electrical telegraph and your background is in portrait painting, you will need to partner with someone who has knowledge and experience with electricity and electromagnetism, as well as the other technical aspects of the system. Sure, you'll want to learn as much of it yourself as you can, but that learning comes, again, from effective and knowledgeable partners.

For decades (if not longer), printers would often view the vendors, manufacturers, and suppliers they worked with as sources of knowledge, if not as "partners," per se. Because of the nature of the capital expenditures (a big expensive offset press), relationships between press manufacturers and press buyers tended to be a deeper one than most seller–buyer relationships.

Other vendor–printer relationships—and partnerships—are no less deep, and in an industry that has fragmented into many disparate niches, it is often hardware and software vendors who have experience throughout all these fragments, as they are the only ones serving all these niches more or less simultaneously. Thus, they can provide insights that others—even other businesses toiling in one's same niche—may not be able to offer.

WhatTheyThink?

Enter Esko

When we speak of hardware and software companies, it's common to simply list products and features: here is software application X, it does Y^1, Y^2, Y^3,…, and is targeted at end user Z. But there is more to it than that.

Esko has a wide variety of integrated products for the labels and packaging, sign and display, commercial printing, and publishing industries. However, given the company's long experience in these industries, from that practical and business knowledge standpoint, can prove themselves to be a resource for printing companies looking to get into these new product and service areas.

It's Not Just the Products

In the previous section, we listed some top "challenge areas" in these new print product markets. If we were to simply offer up a list of Esko's products and features, it would look something like this:

- *Studio* is a set of easy-to-use tools for 3D packaging visualization and design made specifically for packaging artwork professionals. Studio can be used to show designs to customers or for internal process control and proofing, using PDF files with 3D content or movies. Studio Store Visualizer lets users see designs in a "virtual retail environment" on the shelf next to competitive products.

- *ArtiosCAD* is a structural design editor, used by thousands of professionals all over the world. It offers dedicated tools designed for packaging professionals for structural design, product development, virtual prototyping, and manufacturing for all corrugated, folding carton and POP, POS, FSDU display designers.

- *Automation Engine* is a modular workflow server with dynamic workflows that are easy to set up and operate and can be specially configured for wide-format production workflows. Integration and scalability are the names of the game, and the Esko Automation Engine offers MIS/business system integration capabilities as well as extensive scalability.

- *WebCenter* is a secure, cloud-based project management portal that allows users to manage all the assets used for creating packaging, displays, and signage, as well as streamline approval of files and proofs. WebCenter integrates with existing business systems, in all enterprises large and small.

- The *Kongsberg series* comprises powerful, versatile, and dependable cutting tables, with an appropriate table available for every kind of company. From the superwide Kongsberg C to the entry-level Kongsberg V, the tables offer cutting, creasing and milling tools for a wide variety of signage, display and short run packaging applications.

As we said, though, there is more to working with a hardware and software vendor than just ordering products, installing them, and occasionally calling tech support with questions. Esko has been serving the sign and display, packaging, and commercial printing for almost a decade and a half, and in working with business across all of these markets has amassed a broad knowledge base of how these markets work, where the opportunities are, where the pitfalls lie, and how to overcome those pitfalls. For commercial print businesses looking to expand into these high-value print application markets, your hardware and software vendor is uniquely well-positioned to offer valuable guidance, not just with the technological and production details, but with overall market dynamics and the "state of the art."

Here is what a good vendor partner can offer a print provider. Tools (naturally), but also

- new skills
- market trends
- investment advice
- business development

WhatTheyThink?

Keeping an eye on changes in demand for print products in these markets is also of paramount importance, and here, too, a vendor like Esko can provide insights into what products are on the rise, which are on the wane, and which are holding steady.

Esko has a long history of working with companies in all these areas, and ongoing communication with customers—outbound sales and marketing efforts and inbound user comments and feature requests—creates an important feedback loop that gives Esko a 360-degree view of the market.

Conclusions

The printing industry has always been about relationships and partnerships, whether it was between printing companies whose product and service mix complemented each other, printing and prepress or postpress businesses, or even printers and their equipment, hardware, and software vendors. Everyone benefits when knowledge and experience are shared. This is especially true as commercial printers move into the seemingly uncharted waters of new print markets like packaging or sign and display. The thing is, though: those waters *have* been charted—and companies like Esko have the maps.

This white paper was sponsored by Esko. For more information about Esko's solutions and how they can help navigate a business transition, please visit the Esko site at www.esko.com.