Article

Offset Press Manufacturers Embracing Digital Print

By: Ralf Schlözer and Barney Cox

InfoTrends
A Questex Company

For decades, offset printing press manufacturers have dominated the market for production printing equipment. Stagnating total print volumes and competition from digital printing processes have led to declining offset page volumes. Increased productivity of the latest generation of offset presses, together with weak demand for offset presses, has caused the market to go into decline. More than a decade ago, many offset press manufacturers developed strategies to complement their business with digital solutions, but these activities lost momentum in the early 2000s.

Offset in the Last Decade

For centuries, print was the only viable media to distribute documents and one the few choices for advertisers to reach customers. Within the last ten years, print's status as the dominant communication medium has been undermined by the Internet and the rise of mobile technologies. There is also a greater competition between print and other media. As a result, overall print volumes are stagnating in developed countries.

At the same time, changes in demand and evolving business processes among print ordering and print consuming parties have changed the way print is procured and consumed. Companies are moving to on-demand business models, which means that turnaround times have been reduced from weeks (or longer) to days or even hours, while average run lengths have been steadily reducing from thousands to hundreds. Consumers are getting more demanding about receiving better tailored content at their preferred time, format, and location.

Analog printing processes, such as offset printing, have been optimized to produce large amounts of prints with low per-unit costs, while maintaining a high quality level. The shorter the runs, however, the less efficient analog processes become, and digital printing has seen increases in page volume because of it.

At the same time, technological developments by analog equipment vendors have dramatically increased the efficiency and productivity of their devices. This means a single press can replace multiple older machines. Even so, there has been a reluctance among print service providers to retire amortized assets from production, which has resulted in over-capacity. As a result, many printing companies are struggling under severe margin pressure. This has impacted the profitability of the print sector as a whole, leading to the failure of some firms and consolidation by others. While offset printing is still the mainstay of the printing industry, it is now in a precarious situation.

To address this, the three largest offset printing equipment vendors have all recently announced alliances to add digital printing equipment to their portfolios as part of their strategies to bolster their businesses.

The Offset/Digital Alliances

Heidelberg – Ricoh

In February 2011 Heidelberg revealed the identity of its digital print partner—Ricoh.

Under the agreement, Heidelberg initially will sell one Ricoh product, the Pro C901 Graphic Arts Edition digital printer, which Ricoh launched in 2010. Together with the predecessor model Pro C900 and the slowed down version Pro C720, the product family made Ricoh the market share leader in the 301-999K mid-production segment in the United States and Western Europe.

Although it is a global agreement, the first Heidelberg territories to sell the machine in the U.K. and Germany got a head start with the first installations in April 2011.

The two firms officially unveiled the partnership at the digi:media show in Dusseldorf in April 2011, where Heidelberg showed a Pro C901 Graphic Arts Edition as part of an integrated hybrid print production system, including Web-based job submission, Prinect workflow, an Anicolor offset press, and finishing. Heidelberg has clearly positioned the Pro C901 as a complement to short run offset production rather than as a rival of their offset presses.

Heidelberg claims that high-volume digital devices (such as those in the 1M-10M color duty cycle category) are under-utilized and that actual AMPVs are around 200,000 impressions per month, within the capability of a C901. For any site with demand for higher volumes of personalized and ultra-short runs, a couple of Pro C901s would still be less pricey than a single, higher-volume machine from the company's rivals. Additional components will also be necessary. Heidelberg will offer third-party variable data printing (VDP) tools to suit customer needs, with no formal agreements (as of yet).

In the mid- to long-term, the companies plan to develop and market digital equipment together. Given the experience of Heidelberg in productive sheet-fed equipment and Ricoh's lack of higher productivity and duty-cycle color products than the Pro C901, there is certainly room for additional products. Nevertheless, this would clash with Heidelberg's aim not to sell digital too aggressively against their offset offerings. Additional development potential could be in software and solutions, where Heidelberg has extensive knowledge in workflow, color management, and print logistics.

For Ricoh, the alliance provides an additional step up into commercial print. The Pro C901 has already proven to be a popular product that has started to gain the attention of commercial printers. The alliance with Heidelberg provides two things. Firstly, a huge vote of confidence from the leading offset press supplier choosing to partner with it, which will strengthen its reputation with commercial printers. Secondly, it provides an additional sales force to target that market.

manroland – Océ

manroland's partnership with Océ was the first of this latest round of offset-digital alliances. The alliance was announced in December 2010 and the deal covers the sale by manroland of Océ's continuous-feed color inkjet press, the JetStream and ColorStream ranges, to its commercial print client base. According to manroland CEO Gerd Finkbeiner, the deal is expected to be worth €100M annually within five years. The cooperation is worldwide and came into effect in January 2011. There are three main areas to the alliance:

- Sales
- Sharing expertise
- Development

Sales is probably the most basic and obvious level and will encompass having the manroland sales organization sell Océ's inkjet web presses to their customers, as well as generating leads for the Océ sales organization in areas where the manroland sales force is not ready yet to do so. Océ is not planning to sell any manroland equipment.

Sharing expertise is targeted at end-customers where Océ can bring its expertise in digital print and manroland's expertise in conventional print to the table. Combined, both companies can give printers a more holistic outlook on the print market as offset and digital applications grow together.

Development is one of the most interesting aspects of this relationship. Following the strategic alliance, the R&D teams of Océ and manroland will explore joint development opportunities, which will focus on finishing and logistics, but can extend to the whole paper transport.

The first sales of Océ equipment by manroland are expected to occur in the fourth quarter of 2011. The first product of the development cooperation came to light at digi:media, when manroland announced a flexible format folder finishing books and magazines digitally printed on Océ inkjet presses.

KBA – R.R. Donnelly

KBA remains the offset press manufacturer with the most diverse portfolio: from small format offset to the largest sheet-fed presses available, covering commercial and newspaper presses as well as a wide variety of specialty presses.

In March 2011, KBA and R.R. Donnelley (RRD) announced that they had signed an agreement to develop, manufacture, and sell piezo inkjet presses for packaging, security, commercial, and newspaper applications.

Under the terms of the agreement, RRD —the largest printing company in the world—will license its digital imaging technologies to KBA, which will incorporate them into its press offerings. KBA's new digital press will be introduced at drupa in May 2012.

RRD has built up an impressive array of digital printing technology and expertise. The two primary technology families are termed Apollo and ProteusJet, and KBA has the rights to use both technologies in its products.

ProteusJet is a conventional inkjet technology using jettable inks, whereas Apollo is a novel technology that uses inkjet heads to apply a fluid that modifies the lithographic properties of a conventional printing unit. RRD will start using Apollo this year.

It is significant that, rather than keeping its technology to itself, RRD has chosen to partner with a press vendor to sell its proprietary technology to its competitors. By partnering with KBA, it is able to leverage its own R&D spending and get a better return.

Other Revenue Strategies of Offset Press Manufacturers

A stagnating demand for print and an ever increasing productivity of offset presses, together with more competition from Chinese manufacturers and the rise of digital print, means there is no good news for the established offset manufacturers. Alliances with digital printing equipment manufacturers can open up new revenue streams, but manufacturers are exploring other strategies to gain more revenue.

An obvious target is to enter and expand the business with press consumables. Traditionally, print service providers are free to choose their source of inks, paper, plates, press room chemicals, blankets, and more. Specifications or guidelines on properties for consumables exist from the press manufacturers, although print service providers do not necessarily adhere to them. Although consumables are available from the press manufacturers, a wide range of independent suppliers also compete for this business. The ability to switch consumable suppliers is generally seen as a good way to keep down costs by the print service providers. More and more offset press manufacturers are now selling consumables under their own brand. Heidelberg's Saphira line is the most established brand of consumables sold by a press manufacturer. Heidelberg even restructured its business units to form a services division, which includes the supplies business. Offset supplies, however, is a competitive market and margins in this type of business are low, especially since offset press manufacturers are mere resellers, not manufacturers of the supplies.

Other press-related areas to gain revenues are services and solutions. In March 2008, KBA formed KBA Complete, a joint venture with German MIS specialist Hiflex, to provide a range of services to help printers integrate their operations. Working on a consultancy basis to identify and deliver process efficiency, the firm draws on a number of partners across pre-press, print, finishing, and MIS technologies, along with process management and process optimization. manroland offers four groups of services to its customers under the Printvalue banner: printadvice, printservices, printcom, and printnet. Printadvice is business consultancy, while printservices, printcom, and printnet are packages of services, software, and hardware needed to deliver higher production efficiency. Heidelberg is a long-standing supplier of workflow software, and recently bought a Belgium-based developer of MIS software for packaging print. Nevertheless, as gaining revenues from services and solutions is notoriously difficult for hardware suppliers, activities are probably as much support for hardware sales as standalone operations with their own revenue targets.

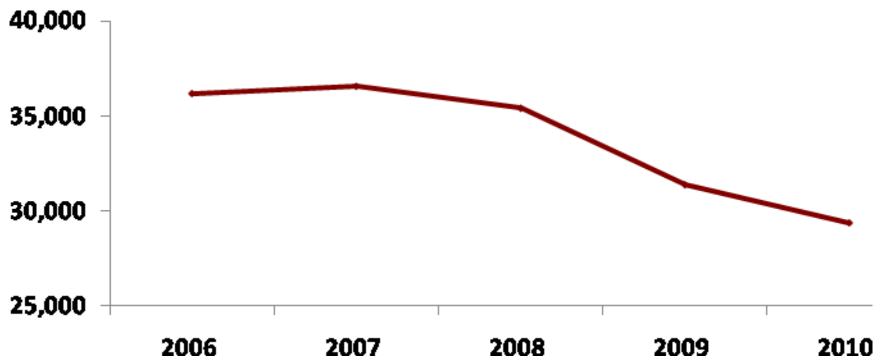
Offset press manufacturers have thought about more ways by leveraging their expertise in manufacturing and engineering to diversify into other industries. Activities surrounding printed electronics is almost a given, and Heidelberg, KBA, and manroland have all set up projects and joint ventures. A little bit out of the mainstream business is KBA's consideration to develop water conditioning and thermal solar technology technologies. In 2011, Heidelberg started to sell laser modules to interested parties, based on the modules used in Heidelberg's platesetters.

Historically, printing press manufacturers have run their own metal foundries. This continues today and opens up opportunities for additional business. manroland opened up their foundry at the Plauen site to outside customers and, with the new business unit industrial services, manroland will rent out manufacturing and engineering personnel on a temporary basis. Heidelberg also announced that its Amstetten foundry was available for hand-molding components for external clients. Newspaper press manufacturer Goss announced that it would manufacture parts of wind turbines in the United States.

Outlook for Offset Press Manufacturing

Given the productivity and low running costs of offset presses, offset lithographic printing will be a major printing process for years to come, however, the demand for presses will decline. Demand for offset presses has always been a fluctuating business, but the last two drops in demand (2002/2003 and 2008/2009) saw only a moderate rebound in sales, in-line with a shifting demand for print and printing equipment. After revenues with offset presses rebounded to over €4 billion in 2010, it is quite possible that much of the anticipated rebound has already happened. If the employment numbers are an indicator, manufacturers are not expecting an upturn. Employment among the three major German offset press manufacturers declined by another 6.4% in 2010 (see chart below). Mid-term press sales are poised to fall below the €4 billion mark again as demand declines.

Total Employment of the Three German Offset Press Manufacturers



Source: Annual reports of Heidelberg, KBA, and manroland

Research from InfoTrends' recent multi-client study *Production Print Services in North America* indicates that print service providers are expecting offset printing to account for a smaller portion of their overall revenues moving forward. The amount associated with offset printing is expected to drop significantly over the next two years.

Percent of Business Associated with Different Services

	2011	In 2 years
Offset Printing	45.1%	37.2%
Other Conventional Printing	6.2%	5.7%
Finishing	13.8%	13.3%
Digital Printing	17.5%	22.0%
Wide-Format Digital Printing	6.4%	8.2%
Value-Added Services	11.1%	13.6%
	100%	100%

Source: InfoTrends Production Print Services in North America

The viability of offset press manufacturers will depend on finding new revenue streams. Moving into the consumable business is a logical step, but vendors are entering into a very competitive market, which is bound to decline, as well. Additionally, offset press manufacturers are capturing only a small part of the value chain, as they do not manufacture the supplies themselves. Branching out into manufacturing of other types of technology items has potentially huge opportunities, if they come into fruition, but in any case will require year-long developments and investments. Especially after most vendors have accumulated hefty losses in the last few years, sufficient spending on new technology developments will be tough to attain.

Alliances with digital vendors and own developments within these partnerships offer comparatively low hanging fruit. Offset press vendors have already access to a market of potential buyers of digital printing equipment. In many cases, long standing relationships exist. Offset press manufacturers can also bring their knowledge of customers and processes to the table in developing new products and solutions.

Nevertheless, success of the alliances is not guaranteed. The basis for success is better than it was ten years ago with the first round of ventures into digital, as all offset press manufacturers must have realized by now that digital printing is here to stay and traditional revenues are on the decline.

Nowadays, no print service provider is unfamiliar with the concept of digital print. The question is rather how to convince traditional print service providers and enable them to change existing business processes in a way that digital printers can be deployed successfully. This will be hard work for traditional press suppliers as it is for digital print vendors, only helped to some extent by the long standing relationship of conventional press suppliers.

Leveraging press and press-room specific know-how for future developments will be crucial for offset press manufacturers. Not only can it help to make more attractive products for traditional printing companies, it will also allow them to develop a unique selling proposition for solutions offered by them. Until then, simply acting as a channel will not result in substantial sales for offset press manufacturers.

In the end, much of the success of the alliances will be determined by the performance of the sales reps in the field. They need to feel comfortable enough with the digital technology to sell it, feel sufficiently incentivized to make a comparatively low revenue digital sale, and have the willingness to pitch a piece of digital equipment versus a conventional press.

InfoTrends' Opinion

As we enter the next stage of the digitization of print, the experience of established offset equipment vendors is important. Their experience in paper handling and high-speed production will be valuable as vendors develop the next generation of high-volume digital print systems. Nevertheless, it is also important for them to be able to remain relevant to customers via digital print solutions as work traditionally produced on their equipment migrates to digital. The reasons for that migration may be due to falling volumes, the added value of personalization, economic short runs, just-in-time/POD printing or a combination of all these factors.

It is unlikely, at least in the mid-term, for some of the high volume work (in particular, folding carton packaging) to switch to digital production, where the opportunities for customization are lower. It is doubtful, though, whether there is enough demand to support all offset vendors as they stand from just that application. Therefore, the importance in diversification into other markets, whether that be digital print or other manufacturing processes that can utilize printing as a fabrication technique, will be paramount for the industry.

This article is based on the InfoTrends Report *Offset Press Manufacturers Embracing Digital Print: The State of the Offset Press Market and Outlook for the Offset-Digital Alliances*, published in July 2011. For more information on this study visit our Report Store.

About the Authors

Ralf Schlözer
Director
ralf_schlozer@infotrends.com
+ 011 44 1582 698052ext. 201

As Director of the On Demand Printing & Publishing Consulting Service Europe, Ralf Schlözer is responsible for all service related publications and research in Europe. He is responsible for market trend analysis and forecasting, as well as creating research projects, presentations, and analysis reports.

Barney Cox
Senior Consultant
barney_cox@infotrends.com
+44 7920 054788

Barney Cox is a Senior Consultant for InfoTrends' European On Demand Printing & Publishing services. Mr. Cox is responsible for conducting graphic arts market research, providing forecast analysis, consulting with clients, and creating editorial content for product and market analysis reports.

