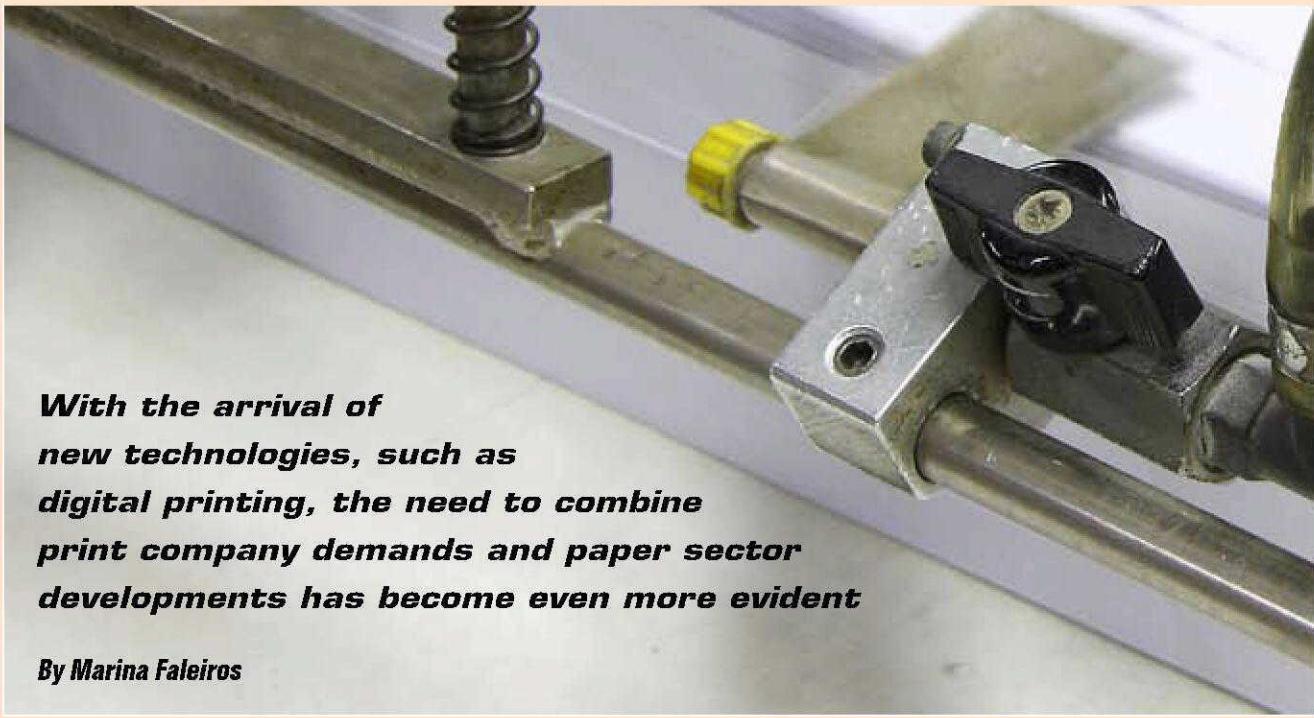


BY RWA

# *The printing challenge for papermakers*



***With the arrival of new technologies, such as digital printing, the need to combine print company demands and paper sector developments has become even more evident***

**By Marina Faleiros**

**W**ho never heard of theories about the rise of computers and end of the large scale use of paper? These forecasts, however, did not take into account the increase in demand on the part of home printers and new trends such as digital printing, which allows customizing content like never seen before. Additionally, the good old books continue being enjoyed in paper format, the same with magazines that could even be home printed. For these reasons, the relationship of paper with printing continues strong, and papermakers need to invest in product launchings that focus on this modern market that's connected to computers and that demands unique technologies and quality.

At print company RWA, for example, several clients already place special



BY RWA

**Brazilian paper mills produce more commodities, as they have a bigger domestic market for that**

orders based on digital printing – using print equipment that only use computer files, rather than metallic plate and other image transfer processes. "We received an order for a customized cover from Veja magazine, in which we pro-

duced roughly 700 thousand copies, all printed on a digital machine with Brazilian paper", says Reinaldo Espinosa, managing partner of the company and president of the Brazilian Association of Print Technology (ABTG).

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*According to the study Trends in digital printing technologies and their impact on printing and writing paper, carried out by ABTCP and the Technological Research Institute (IPT), orders such as the one placed with RWA shall continue climbing and, between 2000 and 2015, this market is expected to grow 330%. "There will come a time when the price curve of offset and digital processes will be at par, but today, digital printing is still much more expensive for big print jobs". says Maria Luiza Otero D'Almeida, a researcher at IPT and member of the technical study team.*

*Brazilian paper makers still lack specific products for this new technology and, according to Maria Luiza, they work with commodities and await greater market demand in order to invest in special products. For the time*



BY RWA

**Study carried out by ABTCP and IPT estimates that the digital printing market will grow 330% from 2000 to 2015**

*being, those looking for different paper, still have to resort to imports.*

*In terms of print companies, Espinosa says that growth of digital printing technology is very apparent.*

*"I have no doubt that this segment is going to grow at very big rates. Today, it's already growing 60% a year, while traditional methods are only growing 6%-7%". However, he says that the per-*

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spective is not that digital printing will completely substitute the big markets, such as offset, since they satisfy more specific demands, such as that of the promotional market and that of billing, which refers to the printing of invoice and bank statement data customized to each customer.

In the opinion of Sérgio Rossi, a consultant in the printing area and author of the book Manual for solving offset printing problems, digital printing does well with small print run and customized projects, such as bills and invitations, but this is still a small portion of the market. "The main printing niche is books, magazines and packagings, which account for roughly 85% of the market. It's true that digital printing has gained market share, but nothing that impacts the print industry as a whole, for it is still a slow and expensive process", he says.

Maria Luiza says that the expectation is that the two markets will get along very well. Additionally, part of the material can be printed on offset – company logos and information -, while only the specific data, like customer name and address, be printed digitally. "One technology not terminating the other", he said.

### PAPER IN THE DIGITAL ERA

According to Espinosa, from ABTG, and Maria Luiza, from IPT, Brazilian papermakers are still focused on commodity papers, that is, they cater to various markets at the same time, not presenting differentiated formulations for digital technology. "When we compare the paper here with what comes from abroad, our product lacks in quality because it is made to work with inkjet and also laser printers, despite the two having different specifications", says the researcher.

The most common types of digital printers are inkjet and electrophoto-

graphic, which make copies and utilize ink toners. Papers made in Brazil cater well to both segments, says Maria Luiza, but without special specifications for each type of usage. "Makers produce an average quality paper that serves for both technologies, but if the client is looking for better performance, this product will not be found. It's like the low-end cars with a 1.0 engine, they work alright, but they're nothing like a 2.0 model", she compares.

For digital printing, the paper must have appropriate characteristics, such as roughness, linting resistance and capacity to hold ink. Paper moisture and its uniformity also affect print quality. "In inkjet printing, for example, the paper needs to be ready to receive liquid ink, with the correct absorption of water and proper ink holdout, or else it will present definition problems", says Maria Luiza. In turn, electrophotographic printing requires a paper that offers a good fusion quality of ink with the surface, which should be of less roughness.

According to consultant Sérgio Rossi, industries not always possess a good communication with the market and some technical conditions of paper worsen as time goes by. One example he offered is superficial resistance, which has not kept up with the growing increase in machine speed. "Instead of improving in this area, the average resistance of paper available in the market has gone from 150 igt down to 90 igt in the last few years", he says.

When thinking about paper's relationship with printing machines, says Rossi, it is necessary to consider two groups of priorities: "machineability", which is the way paper is going to behave in the process and its quality (absence of tears in paper, for example) and "printability", which is its relationship with printing. "If the ink pulls par-

ticles away from the paper surface, they accumulate on the offset blanket and compromise print quality by making it look sandy and poorly printed", he says.

Rossi also said that there's a lack of special papers in the domestic market, such as triple coating coated papers. However, in his opinion, this does not mean that Brazil is behind, just that there is no interest in the market. "Some processes involve an electrical charge, heat and a controlled moisture content and there is nothing available for this in the market. The only innovation to have appeared on the market is Suzano's Color Lok for inkjet printers, which is still very little given all the technology development we currently have", says Rossi.

In Espinosa's opinion, papermakers service the domestic market quite well, although a small supply of certain basis weights grades of paper. According to him, a key advantage that domestic papermakers could already be offering would be A4 and A3 format paper in various basis weight, which would facilitate the work of print companies that utilize digital printing. "Today, we receive everything in reams, and the paper coming already cut would allow for a major increase in productivity, eliminating handling and losses, which can account for up to 15%, due to the forming of wrinkles or tears when adjusting the size".

### PAPERMAKERS ON THE MOVE

On the side of papermakers, ties with print companies continue very strong. According to Gilberto Júlio Piatto, general manager of VCP's paper business, 70% of the company's production goes directly to print companies. He envisions two distinct printing markets: one that includes commodities, such as printing and writing paper and coated paper; and the other of

specialized products, like thermal and self-copying. "in commodities, we don't do anything that is not conventional, we simply improve our ecoefficiency indices, which clients have been paying considerable attention to", he said.

According to him, this past year no changes were made to the formula of conventional paper, aimed at improving print quality, however, when the subject matter is thermal paper, the scenario changes. "I believe we are at the forefront of this segment, since it's an area in which new things appear every day, such as two-color printing and security printing", he says. For support in innovations, the company partners with Japan's Oji Paper.

Some of these new products are not produced continuously, as is the case with papers that are used with electronic ballot machines in Brazil every two years. "We are also the biggest

supplier of digital printing for barcodes, labels and stickers, and for each type of application it is necessary to make the necessary adjustments." VCP says it possesses technology to produce special papers for digital printing on inkjet and laser printers, but the market is still very small. "When we produce a batch, sometimes it takes the entire year for it to be consumed. That's why we stopped and, now, the market imports them."

He said what the company does the most in terms of commodities is to precisely satisfy the need pointed out by Espinosa, supplying different cuts for each type of client. "Our conversion area is very flexible and we also work with large diameter reels, so that print companies make the least number of changes possible and, consequently, better utilize their machine time".

Another company eyeing the digital printing market is Suzano, which introduced the Report brand paper with Color Lok technology, which promises to offer brighter colors, faster ink drying and a more intense black. "It contains a special additive in the formula that provides these characteristics with inkjet printing and can also be used with high-speed printers. Before, only photographic paper offered superior quality with this type of printing", says William Corrêa da Silva, a customer support consultant at Suzano.

He said that the company is researching technologies for producing other papers focusing on the digital printing niche, but for the time being cannot provide further details: "We intend to introduce something specific for that market by the middle of next year", he said.

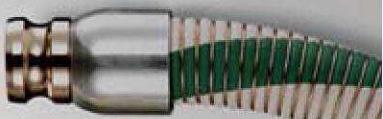


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