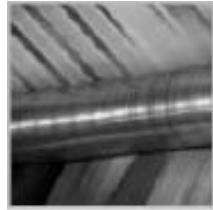


# Article



## Digital Packaging: Making it Work

*By: Nicole Jones and Bob Leahey*

Digitally printed packaging, such as labels, folding cartons, and flexible packaging, is a printing application still in the early adoption phase. First movers can gain powerful advantages in this worldwide market, which is expected to grow significantly over the next five years. Digital printing delivers a set of competitive, cost, and environmental advantages when compared to traditional package printing technologies and is surprisingly well suited to many packaging applications.

### **Why Digital?**

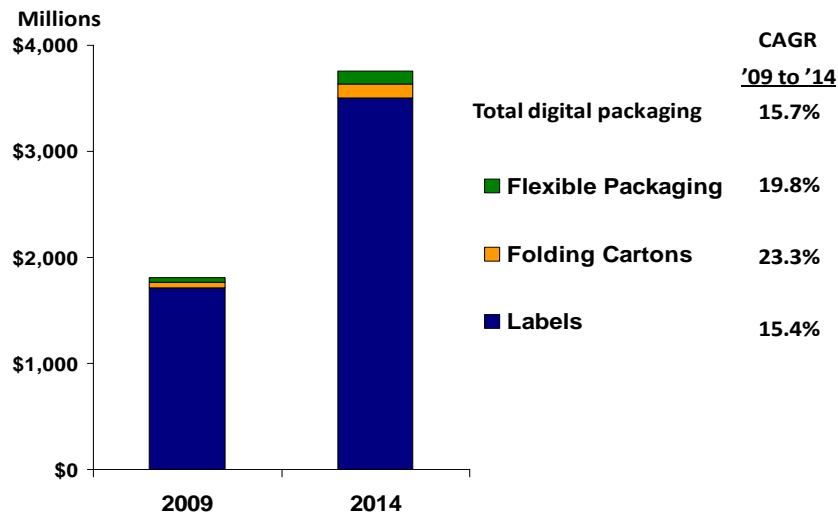
Digital printing technology offers brand owners the ability to improve the cost-effectiveness of their manufacturing supply chains. The use of this technology can significantly reduce time to market, lower waste from obsolescence, and offer enhanced efficiency to customers by moving production to a just-in-time environment that diminishes warehousing and inventory needs.

Digital printing also reduces the need for human intervention in the production process. Jobs are run in sequence, with little to no time needed for changeover. Finishing is typically the most significant bottleneck in traditional and digital packaging operations, but in-line options and laser die-cutting for digital output devices are emerging, which can further cut time and costs. Additionally, while variable data printing (VDP) is still rare in digital packaging applications, there are examples of its use. VDP may also expand as digital printing supports more product manufacturers to address needs for personalization or item-level serialization.

### **Digital Color Packaging is a High Growth Market**

InfoTrends projects a 16% compound annual growth rate (CAGR) for digital packaging between 2009 and 2014. While folding cartons and flexible packaging represent a relatively small base, revenues from these two applications are expected to grow at a 23.2% and 19.8% CAGR respectively over the next few years.

### Worldwide Value of Labels and Packaging Produced on Digital Color Presses



A variety of advances in digital color printing technology over the past few years are driving this double digit digital packaging growth. Substrate compatibility, lower running costs, available inks and toners, faster speeds, larger formats, integrated workflow capabilities, and expanded finishing options all allow digital print to be used beyond proofing applications and expand further into production.

### Workflow Automation the Key to Success

Workflow automation is the foundation for success in digital packaging. There are six key reasons for automating the workflow associated with digital packaging:

- **Increased Efficiency:** Automation enables converters and graphic communications companies to optimize current capital and labor resources.
- **Innovation:** The use of automation offers opportunities to produce new products cost-effectively in very short runs.
- **Cost:** Reduction in labor cost is the most visible factor when automating workflow, but not the only one. Other components to consider include inventory requirements, training, and quality control. Considering these factors when automating existing production facilities can result in a lower cost per unit.
- **Control:** Service providers can maintain tighter control of their operations, while also improving customer order entry by integrating and e-enabling workflow processes.

- **Quality:** Creating and following standards ensure predictable, repeatable results that can be automated to ensure the highest quality possible.
- **Viability:** By strengthening facilities through automation, print providers can become more competitive in the marketplace.

Automating digital color workflow helps print service providers and converters eliminate the re-entry of job information, thereby reducing error rates and improving staff productivity. Automation also enables more efficient communications, streamlined workflows, as well as real-time job tracking and reporting. Ultimately, workflow automation helps print service providers and converters become more competitive and profitable.

### InfoTrends Opinion

Digital packaging printing offers key competitive advantages for printers and converters. Short-run production allows brand owners to cut costs and increase efficiencies by moving to a just-in-time production environment. By doing this companies can reduce time to market, lower waste, and decrease the need for warehousing and inventory. These are key benefits, particularly for companies still pressured by a recovering economy. To be successful, workflow automation is key. It is the foundation for success in digital packaging. Embracing workflow automation will lead to operational efficiency, cost improvements, and opportunities to innovate.

#### ***About the Authors***

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