Digital Printing in the North American Label Industry

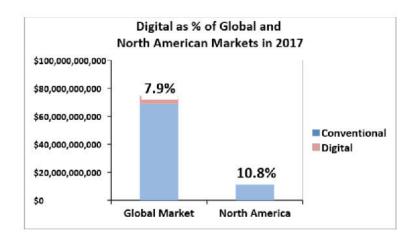


Over the past two decades the North American label printing industry has witnessed the increased adoption of digital press and desktop printer installations throughout the United States, Canada and Mexico. Brand owners and packaging buyers view digital label printing technology as a way to order smaller quantities, expedite delivery and their products' speed-to-market, and decrease levels of inventoried printed packaging that have become obsolete. As a result, digitally printed label volumes are growing across end-use categories in both the prime and non-prime label sectors.

The market for digitally printed labels in the North American marketplace is estimated at \$1.4 billion. The region's digital label volume represents 10.8% of North America's total label market revenues. The graph below indicates the total value of both the global and North American label sector, and the percentage of each represented by digital label sales.*

While electrophotography has long held a dominant position in the North American market, inkjet's continuous engine improvements and capability advancements have positioned the technology as a viable contender across enduse categories. As smaller brands and packaging buyers increasingly seek print-on-demand small run size solutions, adoption rates of high-fidelity desktop inkjet printers are on the rise in a range of verticals.

They include craft beverage, pharmaceuticals, nutraceuticals, consumer durables, industrials, vape manufacturing and the cottage food sector.



As more North American brands and packaging buyers increasingly learn about the benefits of digital printing, market research initiatives are focusing on brands' perception of digital and how these packaging buyers rank the benefits that the technology offers. The list below indicates how brand owners and packaging buyers currently rank the benefits of digitally printed labels from most to least significant:

- Shorter delivery times
- Print quality
- Ability to print shortest run lengths
- Less packaging obsolescence
- More promotional packaging options

Shorter delivery times are ranked as the number one value proposition digital label printing offers for brands across end-use verticals. However, print quality is consistently ranked highest among brands in the personal care/cosmetics categories.

Annual digital label consumption is projected to grow at six to seven times the rate of conventional label growth. Highest digital label growth rates are forecasted for the food, beverage, industrials, health and beauty/cosmetics and household chemicals sectors. Consumer behavioral shifts continue to push printed packaging into new frontiers and this is true for both the prime and non-prime label space. While brand owners and packaging buyers report that being able to quantify the advantage of migrating to digitally printed labels remains a challenge the ability to personalize, customize and regionalize a printed label is a reality that will continue to drive the growth of this technology.

^{*&}quot;Digital label sales" denotes each region's converter revenues of digitally printed labels.