



DIGITAL PRINTING'S ROLE IN MANAGING COMPLEX WORKFLOWS

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DIGITAL PRINTING'S ROLE IN MANAGING COMPLEX WORKFLOWS

Agenda:

- What's creating workflow complexities?
- Assessing ongoing production challenges
- Managing application expansion
- Understanding technological solutions
- Conclusions and recommendations



Image by Stefan Schwehofer from Pixabay

TRENDS DRIVING WORKFLOW COMPLEXITY

NAPCO Research Label Industry Research Study:

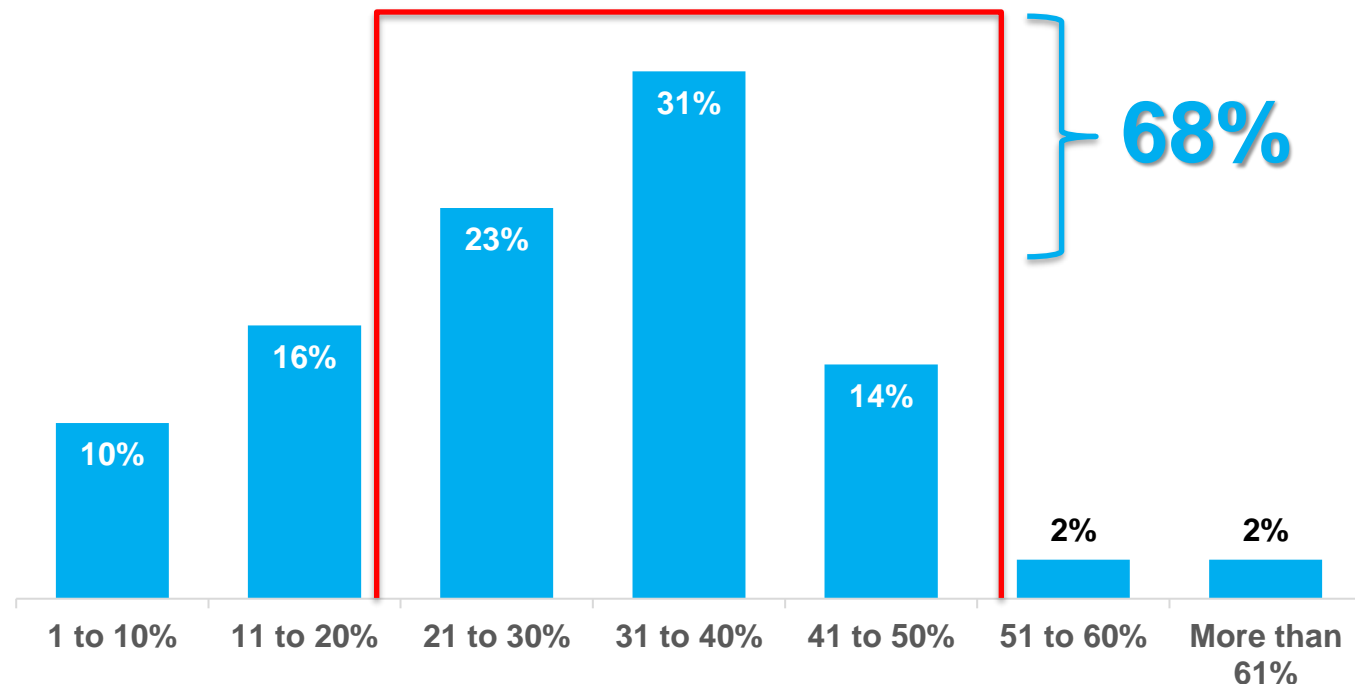
- Thank you to Epson and Screen for your support
- Subscription-based study exploring trends in job quantities, versioning, run lengths, and output volumes.
- Specific to label industry for 2022. Plans to expand for future iterations.
- Study will be annual. Contact me for subscription information.



■ AN INFLUX IN JOB QUANTITIES/VERSIONS

- **Converters are being tasked with producing more individual jobs:**
 - 84% stated the number of label versions they print has increased in the past 2 years
 - 68% of respondents state the total number of label versions has increased between 21% to 50%

Q: By how much has your number of label versions increased over the past two years?



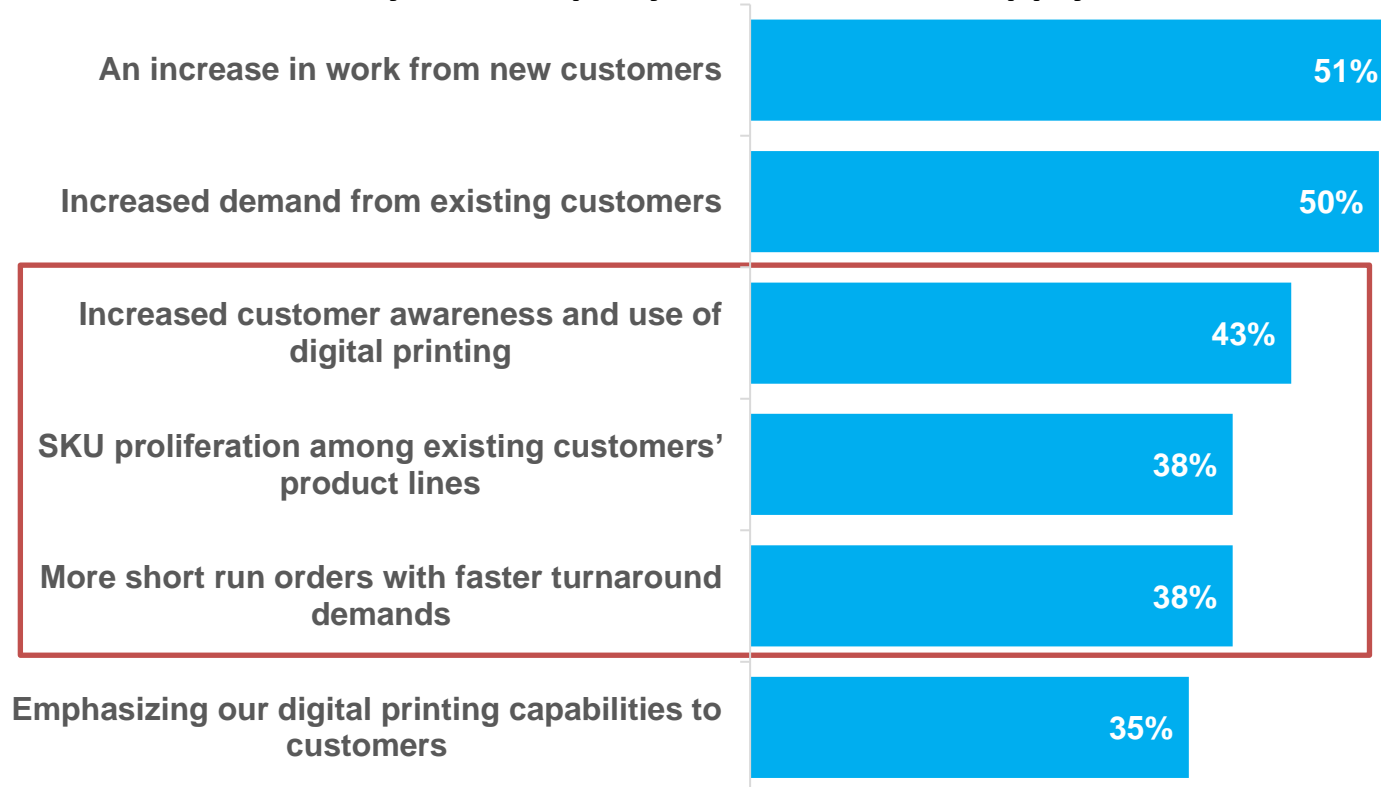
n = 86 respondents that indicated the total number of label versions they produce has increased over the past two years

■ AN INFLUX IN JOB QUANTITIES/VERSIONS

- Increased demand and technological innovation are driving this trend.
- Brand owners are aware of digital's advantages and are making use of them.

- Awareness of digital
- SKU proliferation
- Short runs and fast turnarounds

Q. What are the primary factors driving the increase in number of label versions at your company? Select all that apply.



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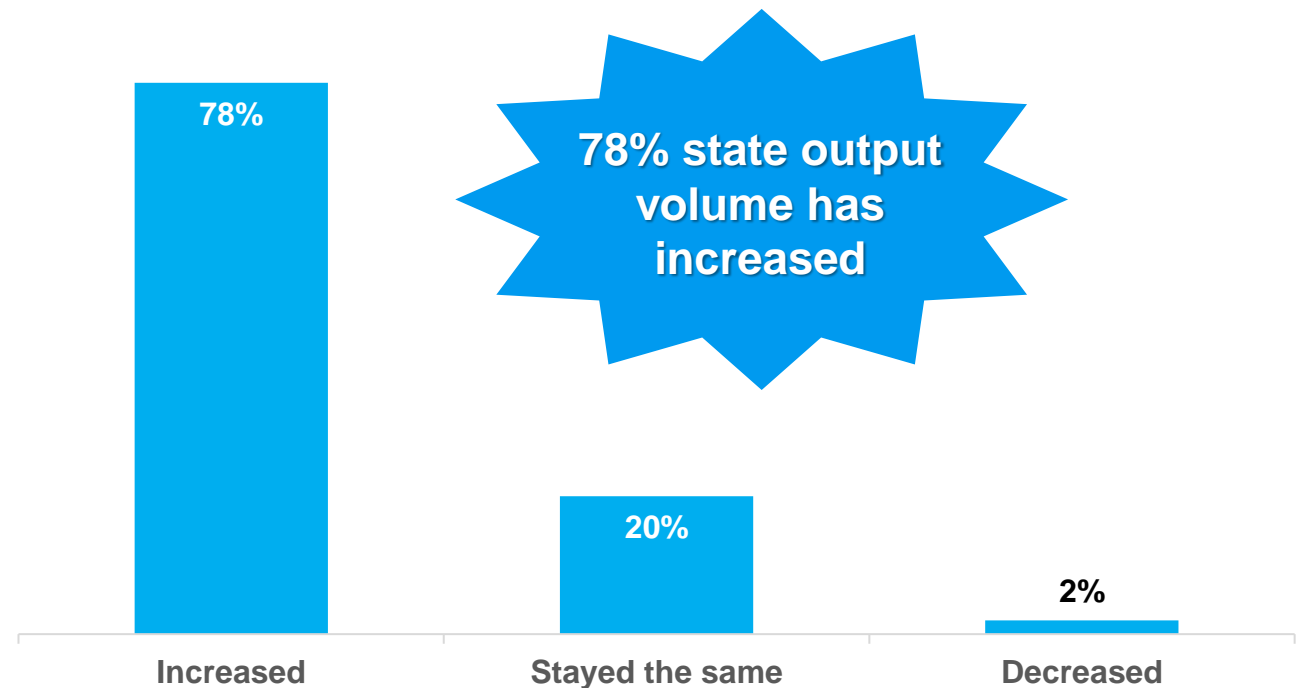
■ AN INFLUX IN JOB QUANTITIES/VERSIONS

- How are converters reacting to this increase in job quantities?
 - Investment in digital production technologies leads the way.
 - Digitizing workflows through equipment and automation allows for easier throughput of increased jobs.
- ✓ **64%** invested in digital and/or hybrid printing
 - ✓ **33%** transitioned existing work from conventional to digital
 - ✓ **35%** increased automation to improve workflow
 - ✓ **31%** invested in finishing equipment

■ AN INCREASE IN OUTPUT

- Not only are more jobs flowing through converters' facilities, they are also producing more total printed output.
- 78% of respondents stated their output volume increased. Only 2% indicated a decrease.
- This is a positive trend for the health of the industry, but does pose certain challenges to converters.

Q. How has your company's output of linear feet of sellable printed label material changed in the past year, if at all?



n = 102

■ AN INCREASE IN OUTPUT

- More material needed at a time of supply chain constraints
 - 40% stated they have increased storage and inventory
- Increasing run lengths in certain areas – a reversal of recent trends
- A need for increased capacity
 - 44% stated they have invested in digital printing as run lengths have increased
 - Advancements in digital have allowed it take on longer runs and provide easily accessible production boosts



Image by Patrick Pascal Schauß from Pixabay

■ ADDING APPLICATIONS

- Convergence is continuing in packaging, delivering new opportunities to printers, but creating some added complexities.
- Technological advancements, primarily digital, have lowered entry barriers into these new segments.

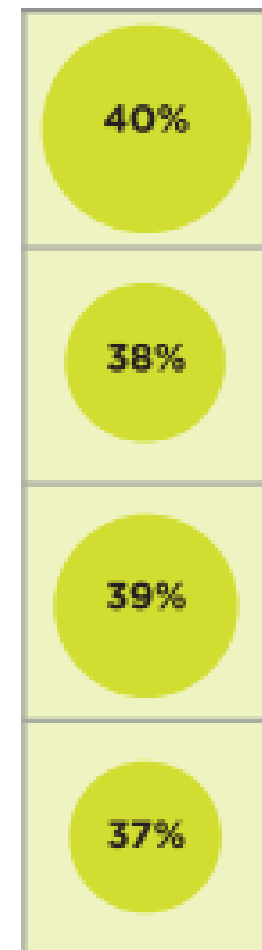
Package printers who have moved or are actively considering moving into these segments.

Labels

**Folding
Cartons**

**Flexible
Packaging**

Corrugated



**Interest evenly
distributed
across segments**

n=103 label and package printers

Source: PRINTING United Alliance, Convergence in Print: A Shift to the New Normal

TRENDS DRIVING SEGMENT EXPANSION

- 77% of packaging respondents state they either have or are evaluating making a move into an adjacent packaging segment.
- Brand owners rarely rely on a single packaging format for all of their products. The ability to consolidate print and packaging vendors is an attractive advantage to offer.
- Technological advancements, primarily digital, have made the transition between segments more feasible.

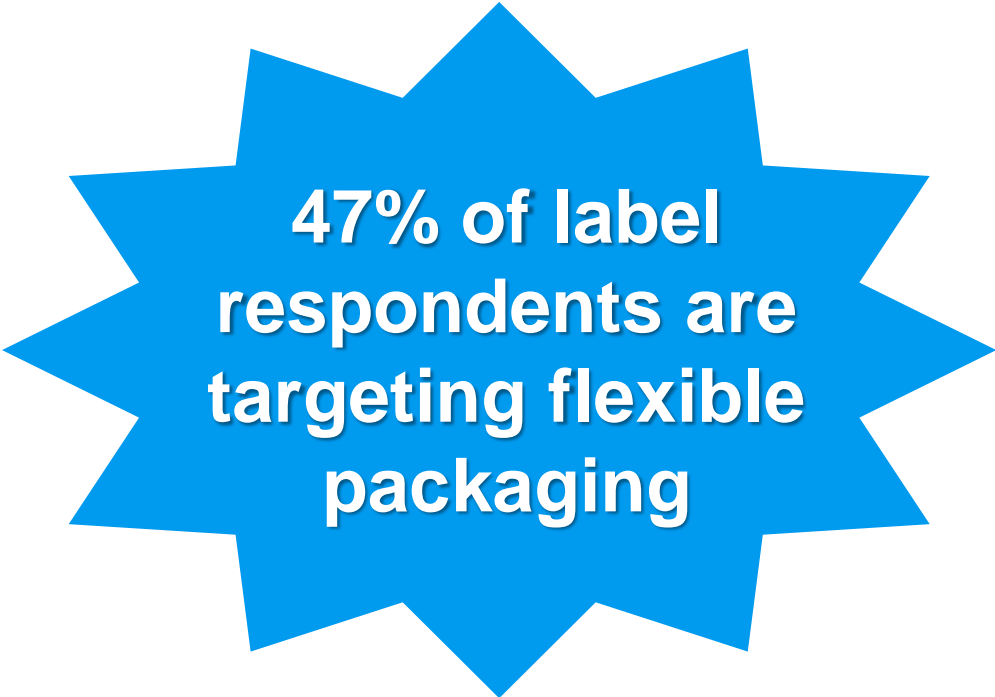


Image via Premier Press

■ WHAT SEGMENTS ARE PACKAGE PRINTERS TARGETING?

Label Printers:

- **47% of respondents are targeting flexible packaging**
 - Similarities in materials and production processes
 - Flexible packaging represents a high-growth opportunity
 - Existing customers transitioning from rigid packages to flexible
 - Opportunities for expansion into shrink sleeve



**47% of label
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Image via Flexible Packaging Association

■ WHAT SEGMENTS ARE PACKAGE PRINTERS TARGETING?

Flexible Packaging and Folding Carton Crossover:

- Top target segment for folding carton: Flexible packaging (44%)
- Top target segment for flexible packaging: Folding carton (44%)
- Digital solutions have opened the door to these applications.



Image by Alexei from Pixabay

Benefits of both applications:

- Recyclability and renewability of paperboard
- Food preservation and lightweighting of flexible packaging
- Luxury appearance and connotation of paperboard
- Portability and convenience of flexible packaging

■ WHAT SEGMENTS ARE PACKAGE PRINTERS TARGETING?

Corrugated:

- Approximately 40% of label, flexible packaging, and folding carton converter respondents are targeting corrugated.
- High-growth segment with the rise of e-commerce
- Digital print solutions are making high-graphic, low-volume packaging a reality



■ WHAT SEGMENTS ARE PACKAGE PRINTERS TARGETING?

Corrugated:

- Corrugated printers are overwhelmingly targeting folding carton: 73%
 - Likely due to process and material familiarity
- 40% are exploring label printing
 - Likely due to the need for shipping labels for e-commerce

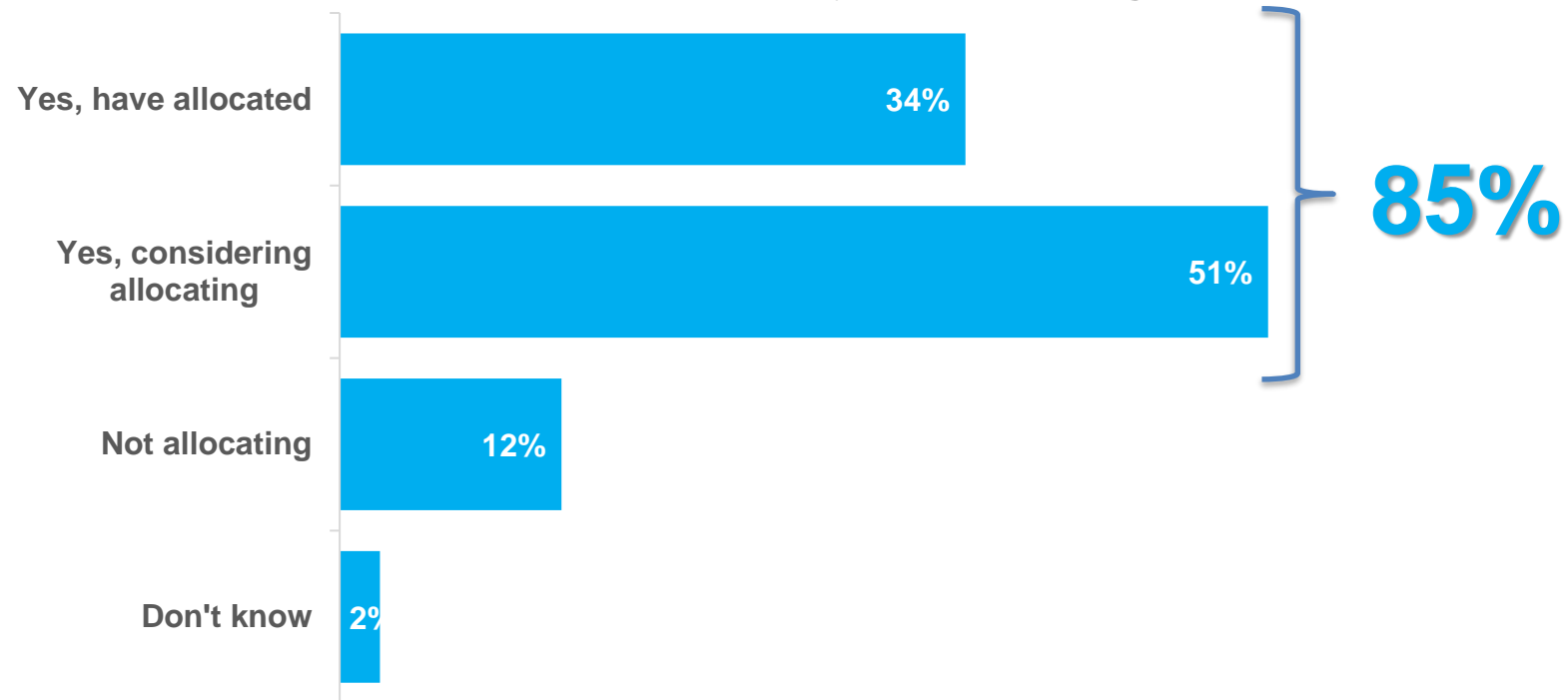


Photo by RODNAE Productions via Pexels

■ CONVERTERS ARE INVESTING IN SEGMENT EXPANSION

- To make a move into an adjacent segment, investment in new equipment is almost always a necessity.
- 85% of packaging respondents indicate they either already have or are considering allocating funds to expand into a new segment.
- Printing equipment is a top priority, but finishing, software, materials, and training and expertise are key to a successful transition.

Have you allocated, or are you considering allocating funds for equipment investment to expand into adjacent print segments?



n=90 Packaging respondents that have entered or are considering entering at least one market segment

MANAGING WORKFLOW COMPLEXITIES

- Whether acclimating to industry trends or contending with convergence, strategies for a new landscape emerge.
- Top goals for new equipment investment include:
 - Increasing efficiency: 78%
 - Decreasing turn times: 50%
 - Expansion into a new market: 42%
 - Automation: 42%

Capital Investment Objectives

All Companies Surveyed (n=234)	
Investment Objective	Citing
Increase productivity/efficiency	78.20%
Increase production speed/decrease turn times	50.40%
Serve an existing market more effectively/efficiently	40.60%
Replace/upgrade aging equipment/software systems	45.70%
Expansion into a new market	41.90%
Automate operations	41.50%
Our business is growing and we need to expand capacity	28.20%
To compete more effectively on price	17.90%
Other	3.40%

Source: PRINTING United Alliance, State of the Industry Series, Volume 1, No. 1.

■ CONCLUSIONS AND RECOMMENDATIONS

- Demand is increasing, as is versioning. With more volume to produce, brand owners are simultaneously exploring how they can enhance and expand on their product lines.
- Run lengths are volatile. Trends are no longer relegated solely to short runs. Expect a mix of run lengths and leverage the right technology for the right job.
- Convergence is occurring within packaging. Brand owners rarely rely on a single packaging format. Explore how you can expand your offerings with the latest technologies.
- An influx of versions and increase in applications can lead to workflow complexity. Explore automation solutions and talk with digital press vendors to learn how to best manage increasingly complicated production processes.

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