



NAPCO RESEARCH & PRINTING UNITED ALLIANCE KEY TRENDS AND INSIGHTS BREAKFAST

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ABOUT NAPCO RESEARCH

- Division of NAPCO Media, parent company of *Printing Impressions*, *In-Plant Impressions*, *Packaging Impressions* and *Wide-Format Impressions*
- Capabilities
 - Strategic Content
 - Market Intelligence
 - Market Sizing & Forecasting
 - Consulting Engagements
 - Sales Training
 - Speaking Engagements
 - Build Training Programs



NAPCO RESEARCH/PRINTING UNITED ALLIANCE AND ECONOMICS TEAM

Nathan Safran
Vice President, Research



- Former Forrester Research Analyst
- Deep experience designing custom research solutions that solve business problems
- Research cited in Wall Street Journal, Reuters and Fortune Magazine

Lisa Cross
Principal Analyst



- 20+ year print industry research, analysis and reporting experience
- Award winning industry journalist
- Extensive experience using research to solve customer business challenges

Andy Paporozzi
Chief Economist



- Former NAPL Lead Economist
- Developed *State of the Industry* research series and *Capital Investment Report*
- Internationally in-demand public speaker on economic factors impacting the print industry

Cory Francer
Analyst



- Packaging industry specialist
- Served as editor-in-chief of *Packaging Impressions* for seven years
- More than a decade of experience as a professional reporter

Evan West
Data Analyst



- Experienced data analyst with deep trends and data analysis experience
- Skilled in analysis of business problems to drive revenue producing outcomes
- Skilled big-data practitioner

Onamica Dhar
Economist



- Experienced in economic analysis, forecasting, and reporting.
- Former survey analyst at the Center for Supply Chain Management, Marquette University.

NAPCO RESEARCH CLIENTS

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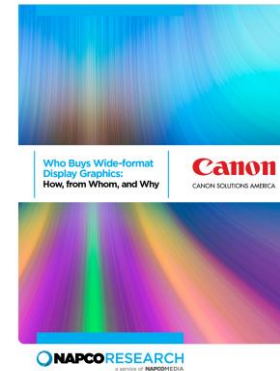
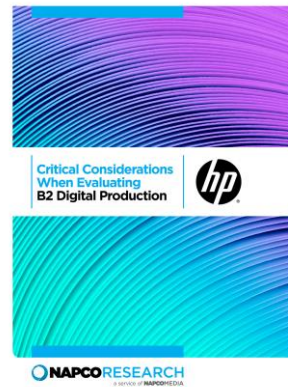
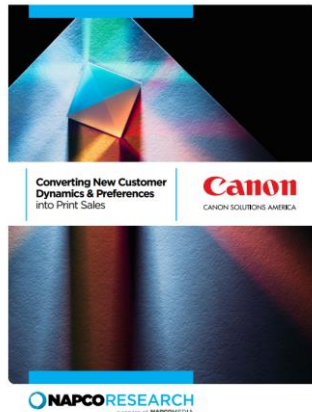
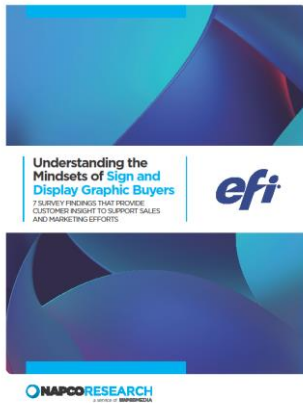
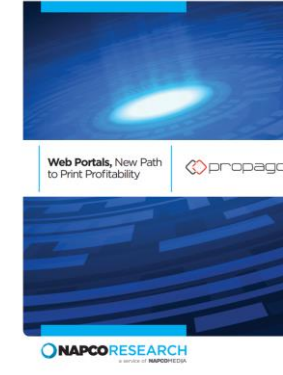
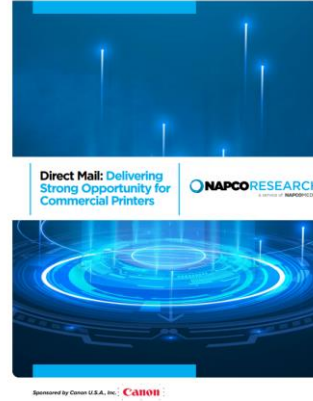
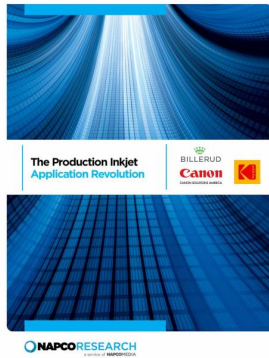
turnkey
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RECENT RESEARCH REPORTS



PRINTING UNITED ALLIANCE RESEARCH REPORTS



State of the Industry Report 2024
The AI/Big Data Revolution



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APRIL 2024



Print Business
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**WIDE-FORMAT PRINTING
REPORT**



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SPRING 2024



Wages, Salaries, and Benefits Report
August 22, 2022

Alliance Members - \$199 | Nonmembers - \$399

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■ NAPCO RESEARCH AT UPCOMING SUMMITS



November 2024



PRINTINGUNITED
LEADERSHIP SUMMIT

February 2025



April 2025



June 2025

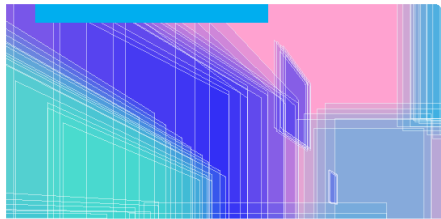


July 2025

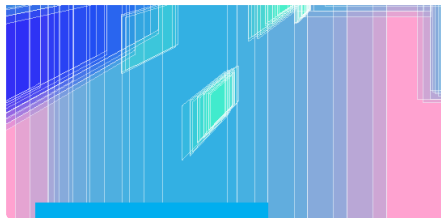
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The Production Inkjet
Application Revolution



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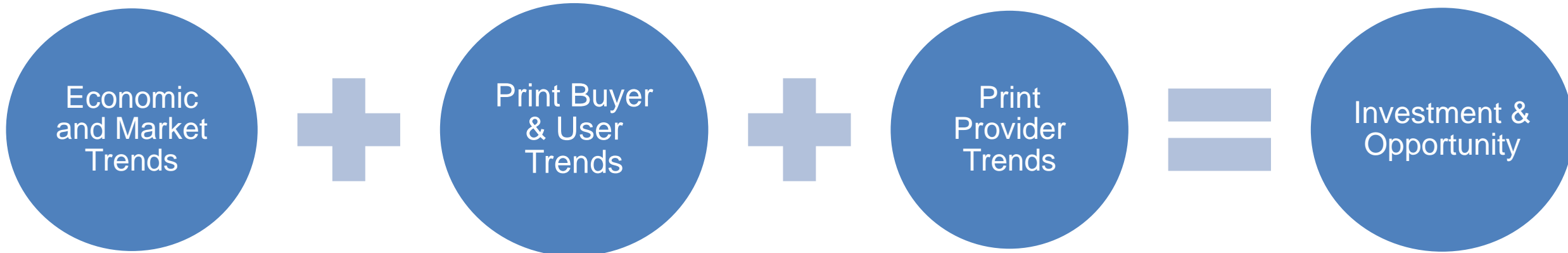
2023 Who Buys Wide-format
Display Graphics: How,
from Whom, and Why



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■ TODAY'S CONVERSATION...

INVESTMENT INFLUENCERS





THE STATE OF THE INDUSTRY REPORT

THE STATE OF THE INDUSTRY

- Sales are growing modestly and profit margins are under pressure as cost inflation outpaces price increases. None of that is likely to change for the better over the next 12 months.
- Sustaining profitable growth requires using all tools – including AI – to:
 - **Maximize productivity companywide** because inefficiencies can't be passed on to clients.
 - **Build robust databases and superior data analytics** so decisions are based on accurate, complete, timely information.
 - **Embrace transformative technologies** and prepare for the next disruptor while **not losing site of timeless business fundamentals**.

The Importance of Data and Data Analytics

“An unforgiving business climate is elevating both the return to making the right decisions and the cost of making the wrong decisions.”

*State of the Industry Update,
Midyear 2024*

■ PARTICIPANT PROFILE

- **165 participants to date.**
- Annual sales range from less than \$1 million to more than \$500 million, with 27.4% having sales of \$3 million or less and 26.8% having sales greater than \$20 million.
- 68.8% have diversified beyond their primary printing segment.

| Segment | Primary | Secondary | Total |
|---|---------|-----------|-------|
| Commercial printing | 60.6% | 15.0% | 77.5% |
| Graphic and sign (wide-format) production | 23.0% | 40.0% | 63.8% |
| Apparel decoration | 1.8% | 9.4% | 11.3% |
| Functional printing | 3.6% | 10.0% | 13.8% |
| Package printing/converting | 7.9% | 26.3% | 34.4% |
| Promotional product imprinting | 1.2% | 13.1% | 14.4% |

STATE OF THE INDUSTRY AND PRINT BUSINESS OUTLOOK SERIES

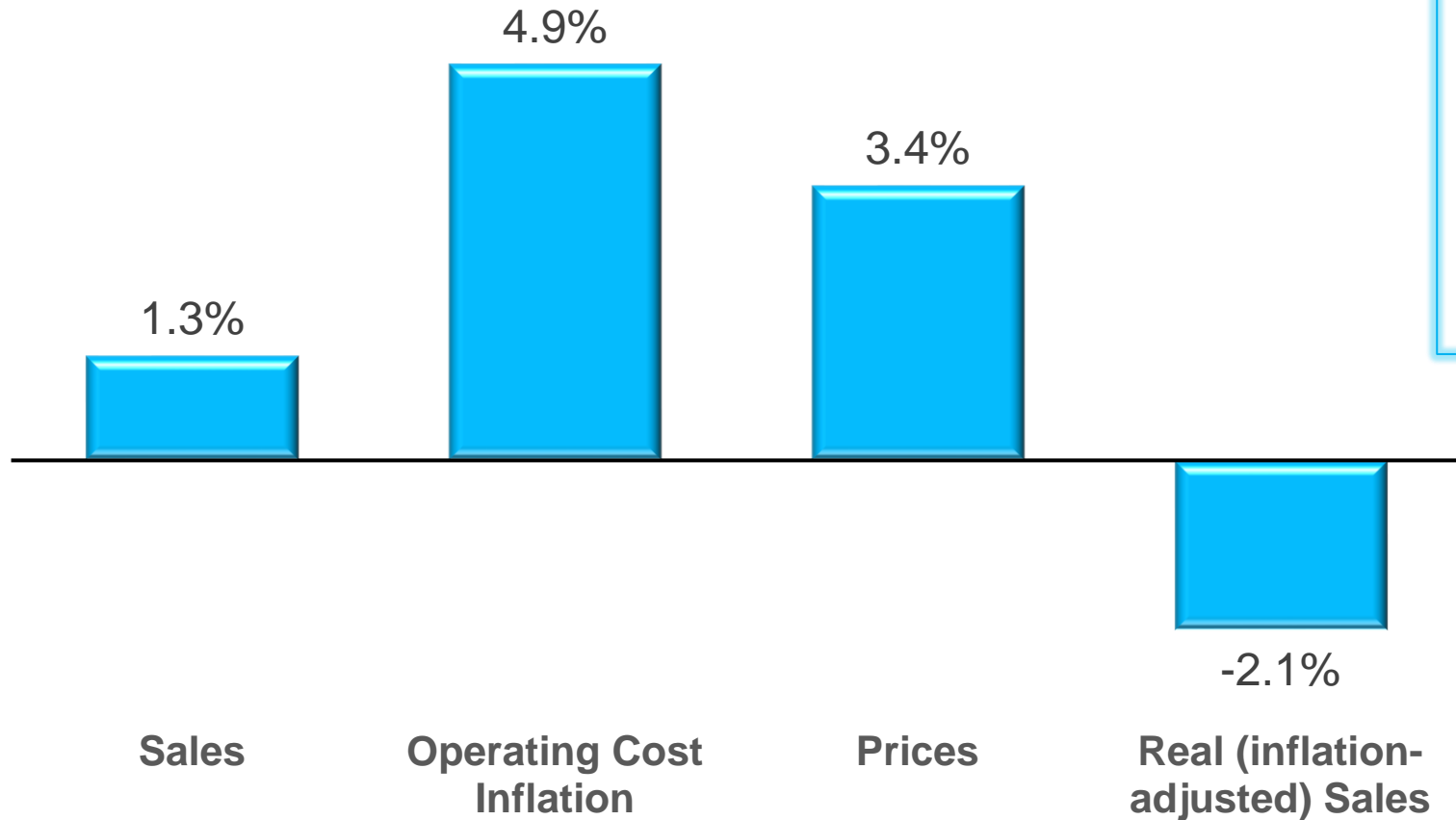
All SOI and PBOS reports are generously sponsored by Canon U.S.A., Inc.

- Results of our survey will be published this month in *State of the Industry Update, Midyear 2024*, which Alliance members can download at printing.org.
- Everyone can download an executive summary of the *Update* as well as PBOS white papers at csa.canon.com.
 - *Direct Mail: Delivering Strong Opportunity for Commercial Printers*
 - *Delivering on Customers' Top Desires with Optimized Wide-Format Production*
 - *Equipment Installations and Applications at In-plants*



SALES GROW MODESTLY; REAL SALES DECLINE

Average change during first half of 2024 over year-earlier period.



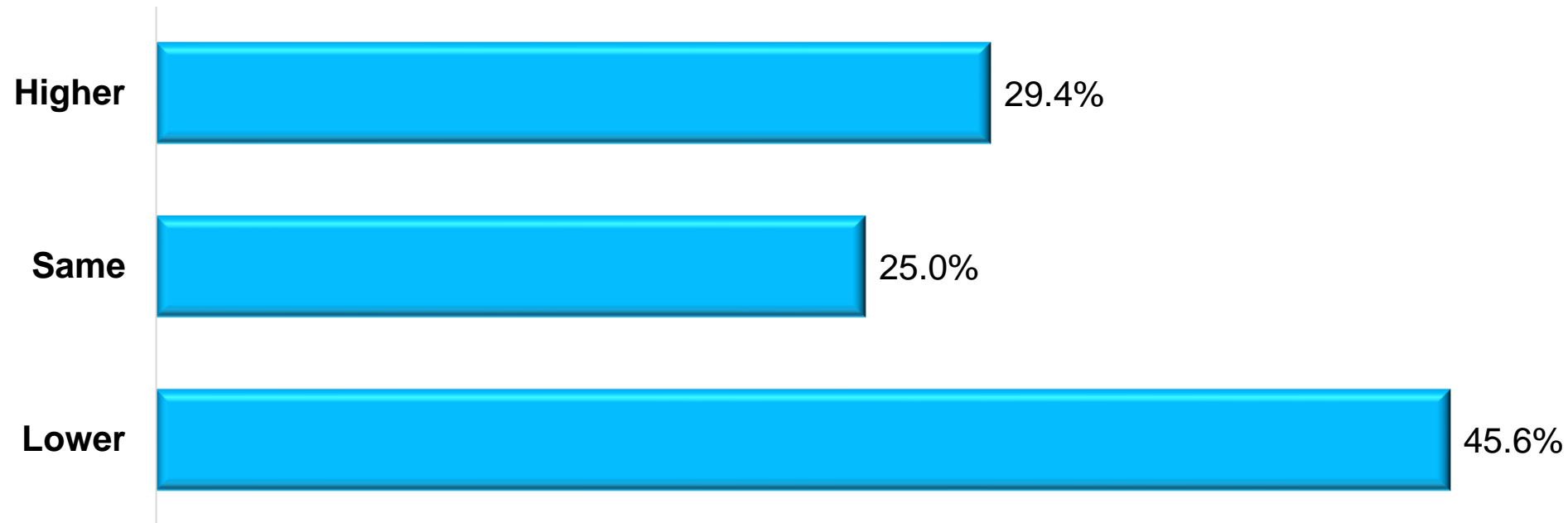
A Telling Statistic

43.1% of SOI participants report operating cost inflation exceeded price increases through midyear 2024, while just 26.2% report the opposite.

PROFITABILITY UNDER PRESSURE

Q: How does your pre-tax profitability (pre-tax profits as a percent of sales) compare with year-earlier levels?

Just 29.4% of SOI participants report pre-tax profitability increased during the first half of 2024, as sluggish sales and rising costs continued to pressure margins.



■ WHAT WILL YOU DO BETTER

Q: What will your company do better in 2024 than it did in 2023?

In our increasingly competitive, complex industry, you are either getting better or falling behind. There is no third option.

- **Companywide focus on productivity, cost control, and quality control.**
“Automate from quote to invoice,” streamline workflow, squeeze steps and touches out of processes by “documenting processes and holding employees accountable,” and capital investment that supports automation and production speed.
- **Invest in and make better use of business intelligence systems (ERP, CRM, MIS, etc.)** so decisions are based on the most complete, timely, accurate data available. It’s all about the data and the ability to analyze that data.
- **Manage change** through effective environmental analysis/scanning, identifying what’s likely ahead, why, and how to make it an opportunity rather than a threat.

■ WHAT WILL YOU DO BETTER

Q: What will your company do better in 2024 than it did in 2023?

- **Manage risk** because “no matter how well your business is doing or how well it is run, it can turn in an instant.” Tactics include:
 - Calculating key risk indicators
 - Calculating customer health scores
 - Stress testing your business
- **E-commerce.** Extend automation directly to the customer by updating websites, strengthening web-to-print capabilities, and "adding as many web portals as possible to help clients manage marketing assets and us to automate as much as possible in production.”
- **Embrace sustainability,** creating value by "working on more sustainability and environmentally conscious products."

■ WHAT WILL YOU DO BETTER

Q: What will your company do better in 2024 than it did in 2023?

- **Focus on the basics**

- Tighter management, from “paying closer attention to everything that affects profit” and “more careful inventory management” to “diligent efforts to capture and pass along increased material and labor costs” and “billing for things we were giving away.”
- Accurately budgeting hourly cost rates.
- Focusing on more profitable, higher value-added work, “firing bad clients,” and being “selective in whom we will print for.”
- Brand enhancement, particularly marketing the value created for clients rather than capabilities and features alone.
- Pursuing opportunities that best match our capabilities, circumstances, and resources – i.e., not just diversifying but diversifying profitably.
- “Focusing on what we’re good at.”

■ THE NEXT BIG DISRUPTOR

Q: What do you believe will be the next big disruptor in our industry?

- **Artificial intelligence.** The most frequently cited disruptor. A “game changer” that reaches far beyond production and workflow to "all disciplines" and "all levels of the company," leaving “those who don't embrace AI struggling to keep up.”
- **Government.** Proposals to restrict carbon black were cited as an example of the disruption/damage posed by laws and regulations that are "uninformed or unresearched."
- **Data.** “Harnessing data to make better business decisions.” Not just structured data that fits neatly into spreadsheets but unstructured data such as audio, video, and text that AI algorithms analyze efficiently, supporting richer analysis and forecasting of everything from client preferences and market potential to employee satisfaction and cyber threats.
- **Sustainability.** "Customer demands for more sustainable solutions" that reduced the environmental impact of print, "social pressures and recycling challenges," and environmental policies such as extended producer responsibility "will continue to put pressure on our industry.“

CAPITAL INVESTMENT PLANS

Q: Do you plan to make a capital investment over the next 12-18 months? If so, which investments?

Nearly 83.0% of SOI participants plan to make a capital investment over the next 12-18 months. Of the more than 30 investments planned, these 10 are list more frequently:

| Investment | Percent Planning |
|--|------------------|
| Artificial intelligence applications | 37.1% |
| Bindery/finishing equipment/systems | 34.3% |
| Workflow software | 30.0% |
| Digital infrastructure (workstations, servers, networks, etc.) | 30.0% |
| E-commerce solutions (Web-to-print, Web storefronts, etc.) | 28.6% |
| Management knowledge systems (ERP, CRM MIS, etc.) | 22.9% |
| Prepress/premedia software (RIP, creative, color management, etc.) | 18.6% |
| Commercial inkjet | 18.6% |
| Wide-format inkjet | 15.7% |
| Fulfillment capabilities | 12.9% |

CAPITAL INVESTMENT OBJECTIVES

Q: What are your capital investment objectives over the next 12-18 months?

Increasing productivity and automation are the two most frequently cited capital investment objectives.

| Investment Objective | Citing |
|---|--------------|
| Increase productivity/efficiency | 88.9% |
| Automate operations | 64.4% |
| Replace/upgrade aging equipment/software systems | 60.0% |
| Increase production speed/decrease turn times | 51.1% |
| Serve an existing market more effectively/efficiently | 46.7% |
| Add capacity to accommodate growth | 40.0% |
| Expand into a new market | 37.8% |
| Compete more effectively on price | 17.8% |

WIDER USE OF AI PLANNED

Q: For which functions are you currently using AI and for which do you plan to be using AI within one year?

| Function | Currently Using | Planning to Within One Year | Total |
|---------------------------------|-----------------|-----------------------------|-------|
| Content creation | 28.6% | 21.0% | 49.6% |
| Marketing | 16.8% | 23.5% | 40.3% |
| Sales | 16.0% | 26.9% | 42.9% |
| Cybersecurity | 14.3% | 23.5% | 37.8% |
| Market analytics | 13.4% | 24.4% | 37.8% |
| Operations | 12.6% | 37.8% | 50.4% |
| Customer analytics | 12.6% | 26.9% | 39.5% |
| Hiring | 7.6% | 23.5% | 31.1% |
| Employee development/evaluation | 5.9% | 19.3% | 25.2% |
| Performance evaluation | 5.0% | 25.2% | 30.3% |
| Customer service | 2.5% | 25.2% | 27.7% |
| Risk management | 2.5% | 20.2% | 22.7% |

In Their Own Words*

- “We feel very strongly about our organization learning about and using AI because if we don’t, our competitors are going to pass us by.”
- “You can’t sit on the sidelines with regard to AI because it is going to fundamentally change our business, so make sure you are learning about. It isn’t going away.”

* SOI participants quoted in *Artificial Intelligence in the Printing Industry: The Journey Begins*.

■ AI APPLICATIONS SOI MEMBERS ARE USING

Q: Which AI applications do you find most useful and why?

- **Tilia Labs.** AI-based estimating, planning, and imposition for packaging, labels, commercial, and wide format markets.
- **Anodot Autonomous Forecasting.** Machine-learning, real-time forecasts of financials, inventory, costs, waste, demand, growth, and other key business metrics.
- **Microsoft 365 Copilot.** Word, Excel, PowerPoint, Outlook, and Teams respond to natural language commands.
- **Salesforce Einstein.** AI machine learning, natural language processing and predictive analytics to uncover, analyze, and forecast trends in customer data and to automate tasks.
- **Midjourney.** Like DALL-E, Midjourney generates images from natural language commands for articles, blog posts, social media posts, e-commerce websites, marketing campaigns, and even augmented and virtual reality applications.
- **Bricabrac.** Creates “fully functional web applications” from text inputs with minimal coding.
- **Otter.ai.** Transcription tool that converts audio files such as presentations and podcasts into text and records online meetings, creating complete transcripts, key takeaways, and action items.

PRINTED PRODUCT OUTLOOK

Q: For each of your major printed products, how do you expect your sales of that product to trend over the next three years?

- **To date 365 SOI participants** have provided forecasts for more than 60 printed products ranging from direct mail to flexible packaging.
- Forecast period 2023-25. Currently updating to 2024-26.
- Three years to capture trend. A product’s performance can vary from year to year depending on sensitivity to the business cycle, the strength of industries served, pent-up demand, etc.
- Expectations within a range because of the difficulty of forecasting three years out.

| Product | Grow on Average per Year by ... | | | | | | Flat 0% | Decline on Average per Year by ... | | | | | |
|-----------|---------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 20%+ | 20% to 16% | 15% to 10% | 9% to 7% | 6% to 4% | 3% to 1% | | 1% to 3% | 4% to 6% | 7% to 9% | 10% to 15% | 16% to 20% | 20%+ |
| Product 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Product 2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Product 3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

PRINTED PRODUCT OUTLOOK

The ten printed products SOI participants expect to grow fastest through 2025.

| Product | Number Forecasting | Expected Change: 2023-25 | |
|---|--------------------|--------------------------|-------------------|
| | | Average Annual | 3-Year Compounded |
| T-shirts | 89 | 5.3% - 8.1% | 16.8% - 26.3% |
| Sweatshirts/hoodies | 85 | 4.3% - 6.6% | 13.5% - 21.1% |
| Promotional imprinting: Trade show/event products | 51 | 4.1% - 6.3% | 12.8% - 20.1% |
| Hats/caps | 89 | 4.0% - 6.3% | 12.5% - 20.1% |
| Promotional imprinting: general printed products | 49 | 3.8% - 5.9% | 11.8% - 18.8% |
| Folding cartons | 74 | 3.3% - 5.2% | 10.2% - 16.4% |
| Window graphics | 145 | 3.3% - 5.1% | 10.2% - 16.1% |
| Banners/soft signage/flags | 165 | 3.1% - 5.0% | 9.6% - 15.8% |
| Wall/architectural/building graphics | 130 | 3.0% - 4.8% | 9.3% - 15.1% |
| Direct mail | 202 | 2.8% - 4.6% | 8.6% - 14.4% |

■ NEXT STEPS

Thanks again to Canon U.S.A., Inc. for making the State of the Industry Series and Print Business Outlook Series possible.

Make a compelling case for how we help our clients:

- Boost productivity companywide, automate, streamline processes/reduce touches, etc.
- Understand AI and profitably integrate it into their businesses.
- Build the robust databases and data-analysis capabilities that are the foundation of consistently superior business decisions.
- Prepare for the next big disruptor.
- Manage risk.
- Strengthen business fundamentals that are the foundation of sustained profitable growth.

■ TRENDS INFLUENCING INVESTMENT

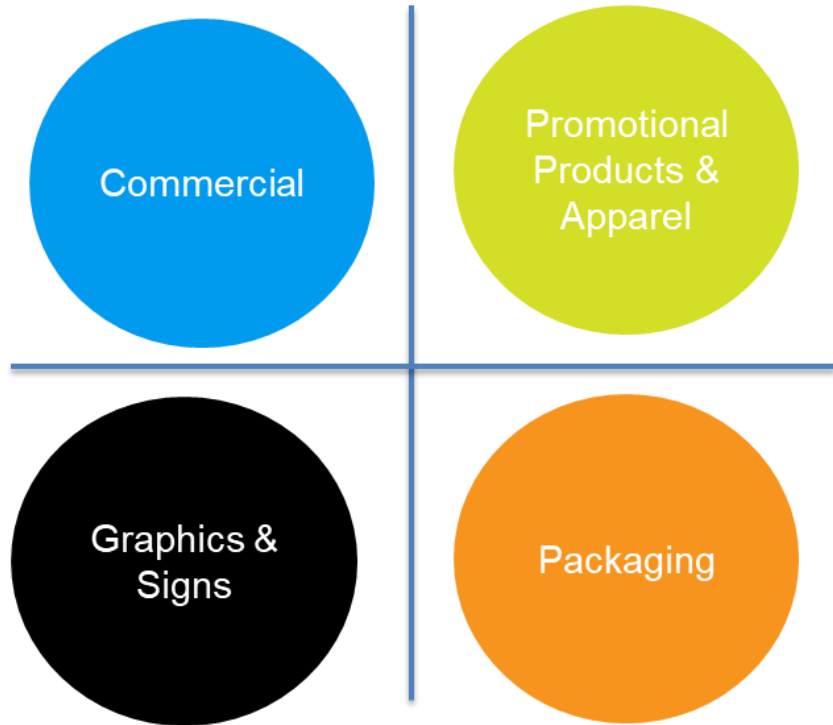
1. Convergence is Reshaping Print Segments
2. Artificial Intelligence: The Journey Begins
3. Print Providers Investing in Operations
4. Automation is the Cornerstone of Profitability
5. Analog to Digital Transformation Accelerating Across all Segments
6. Customers Driving Demand for E-commerce Options
7. Labor Challenges Persist
8. Sustainability: Both a Challenge and Opportunity

1. CONVERGENCE IS RESHAPING PRINT SEGMENTS

CONVERGENCE IS RESHAPING ALL MARKETS

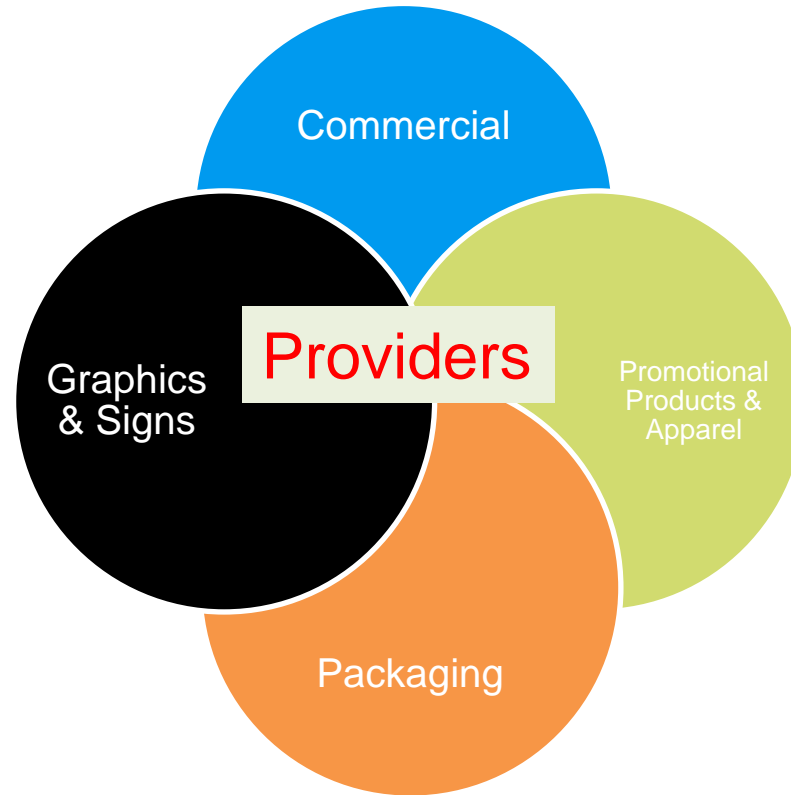
PAST

Distinct Boundaries



TODAY

No Boundaries



68%

of the close to 600
State of the Industry
Panel members have
diversified beyond their
primary segment

CONVERGENCE BY THE NUMBERS

| Primary Segment | Diversified Beyond Primary Segment | | Secondary Segment Added | | | | | |
|-----------------------------------|------------------------------------|-------|-------------------------|--------------------------------|--------------------|-----------------------------|---------------------|--------------------------------|
| | Yes | No | Commercial Printing | Graphic and Sign (Wide-format) | Apparel Decoration | Package Printing Converting | Functional Printing | Promotional Product Imprinting |
| All companies surveyed, n=583 | 67.8% | 32.2% | 14.9% | 38.6% | 6.0% | 17.0% | 9.3% | 24.5% |
| Commercial printing, n=234 | 74.4% | 25.6% | --- | 59.4% | 11.5% | 31.6% | 7.3% | 14.5% |
| Graphic/sign production, n=70 | 70.0% | 30.0% | 45.7% | --- | 11.4% | 12.9% | 21.4% | 12.9% |
| Apparel decoration, n=210 | 60.5% | 39.5% | 13.3% | 31.9% | --- | 5.7% | 7.6% | 44.3% |
| Package printing/converting, n=48 | 70.8% | 29.2% | 45.8% | 27.1% | 0.0% | --- | 12.5% | 14.6% |
| Functional printing, n=17 | 52.9% | 47.1% | 17.6% | 35.3% | 0.0% | 23.5% | --- | 0.0% |

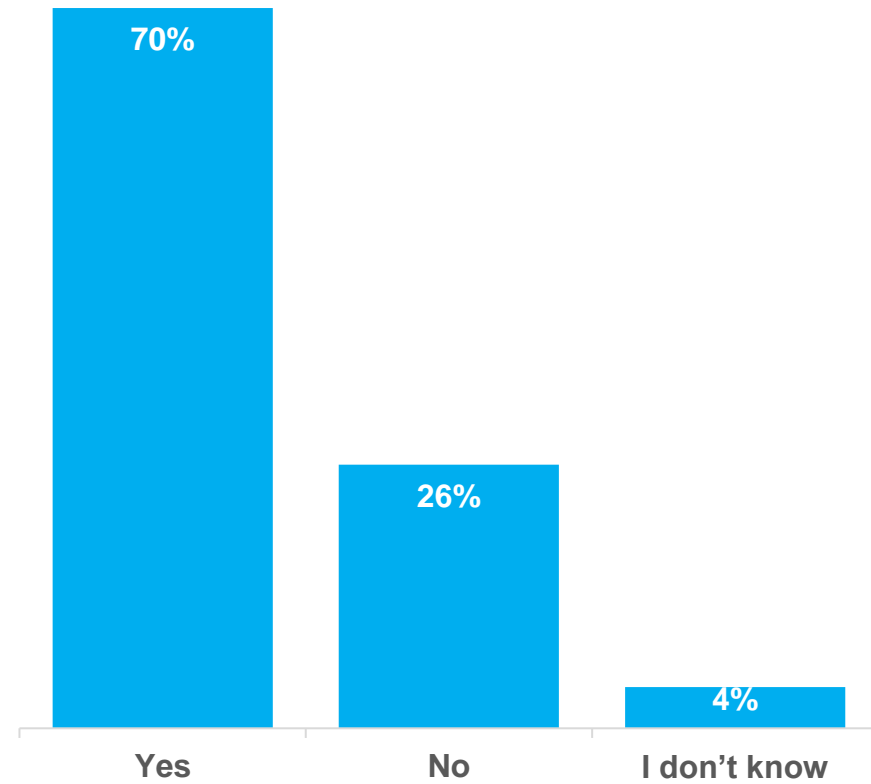
Source: PRINTING United Alliance State of the Industry Panel

■ COMMITTING TO CONVERGENCE WITH INVESTMENT

70% of respondents have invested in new equipment in the past 5 years to expand into new applications.

Printers aren't just considering convergence. They're committing to investments to make it happen!

Q. Has your company made an EQUIPMENT purchase in the past 5 years that allowed it to expand into new applications?



n=675 Print providers across segments
NAPCO Research Fall 2023

■ WHAT CONVERGENCE MEANS TO YOUR CUSTOMERS

Grow Sales

**Meet
Customer
Demand**

**Increase
Customer
Stickiness**

**Diversify Revenue
Streams**



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WHAT CONVERGENCE MEANS FOR INDUSTRY VENDORS

Do you have a comprehensive strategy to turn convergence into an opportunity?

Sales/Marketing

- Does your sales team know how to identify (convergence) opportunities for your customers?
- Do you have sales/marketing materials and processes to guide your customers to new opportunity and help them enter a new segment?
- Is your sales team set up to sell cross-segment?

Product

- Are you designing product to support multi-segments?
- Do you have entry-level products to support low-risk entry to new segments?

Strategy

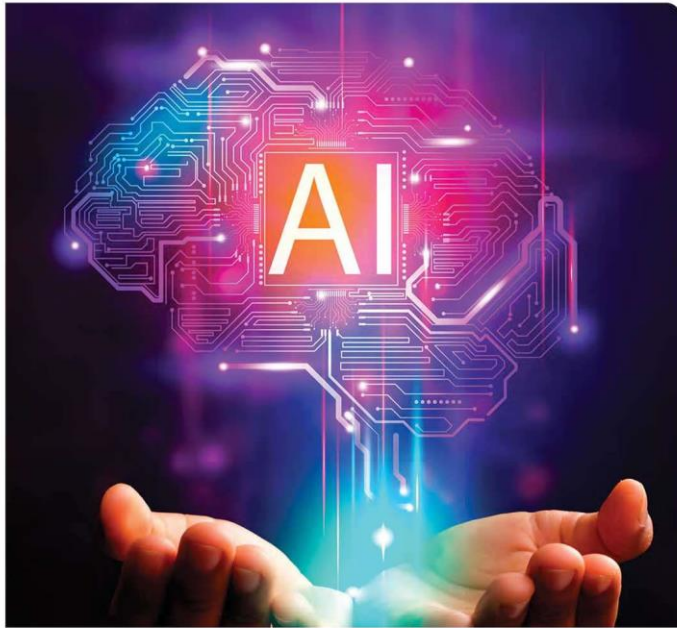
- Do you *really* understand your customers' individual drivers, opportunities, challenges...convergence presents?
- Have you made meeting the convergence phenomenon an organization-wide initiative?

Support

- Is your support organization designed to support cross-segment
- Do they understand the unique challenges convergence introduces?

2. ARTIFICIAL INTELLIGENCE: THE JOURNEY BEGINS

JUST LAUNCHED RESEARCH REPORT



Artificial Intelligence in the
Printing Industry: The Journey
Begins

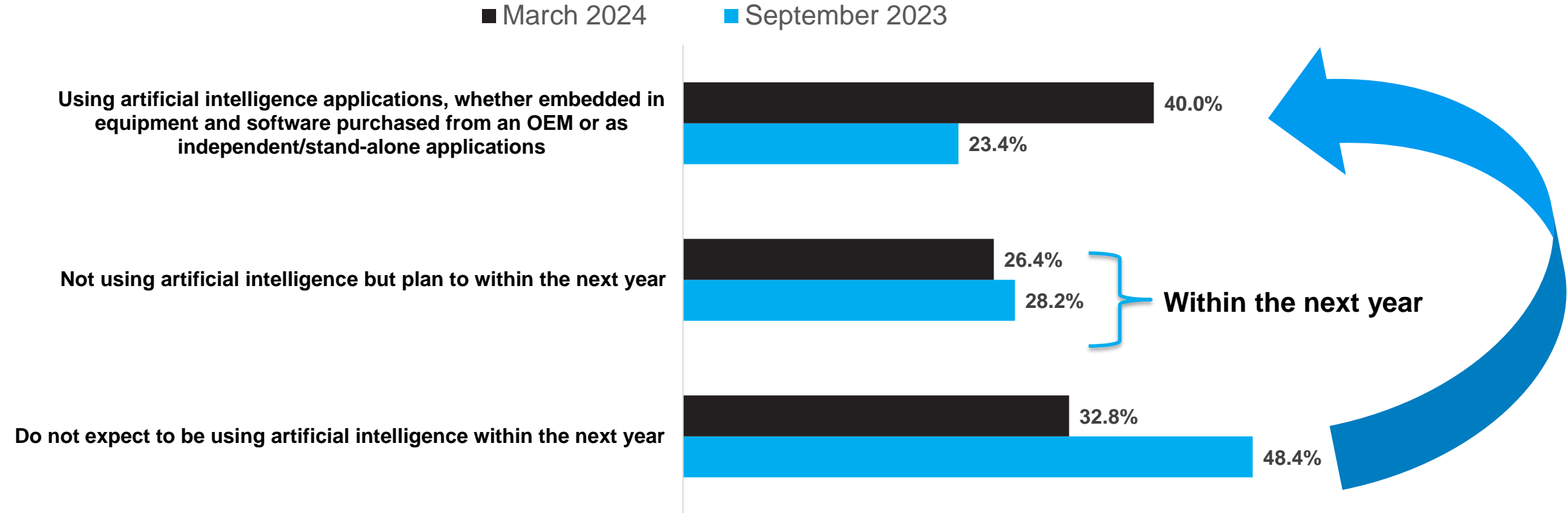


- PRINTING United Alliance and NAPCO Research study
- Artificial intelligence is poised to be the next big printing industry disruptor and its adoption across segments has begun as print providers a look to harness AI in print production, sales, marketing, and management applications
- The research study, part of an ongoing series to track AI industry adoption and use
- The first research report combines ongoing survey research with in-depth interviews with print providers
- AI Research Presentation Tuesday September 10, 9:15-9:45 AM at the Knowledge Center Presentation Stage

Produced by the PRINTING United Alliance and NAPCO Research for its members.

PRINT PROVIDERS INCREASING USE OF AI

Q. Which of the following is true for your company?



n=191 Print Providers

Source: PRINTING United Alliance State of the Industry Surveys, First Quarter 2024 and Third Quarter 2023.

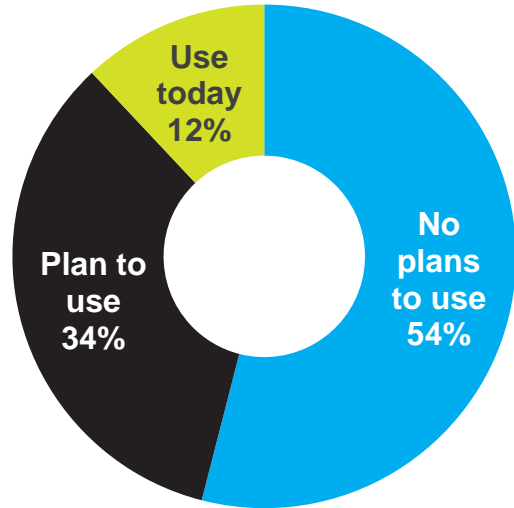
AI APPLICATIONS NOW AND FUTURE

Q. For which functions are you currently using AI and for which do you plan to be using AI within one year?

| AI Application | Currently Using | Planning to Within 1 Year |
|---|-----------------|---------------------------|
| Content creation (text, audio, social media, podcasts, etc.) | 29.0% | 20.2% |
| Marketing (create and evaluate marketing programs, segment target markets) | 16.1% | 24.2% |
| Sales (automate administrative tasks, score leads, forecast sales, evaluate sales personnel) | 15.3% | 27.4% |
| Cybersecurity (threat identification, protection, and response, data security/ protection, predict threats) | 13.7% | 25.0% |
| Market analytics (identify and evaluate target markets in terms of size, profitability, growth potential, etc.) | 12.9% | 25.8% |
| Operations (predictive maintenance, quality control, supply chain/procurement management, logistics) | 12.9% | 37.9% |
| Customer analytics (evaluate customer comments, requests, behaviors, and preferences, identify opportunities to create value/solve problems, identify customers at risk of churning) | 12.9% | 27.4% |
| Hiring (identify, research, screen, and communicate with job applicants) | 8.1% | 23.4% |
| Employee development/evaluation (create personalized training, measure effectiveness of training, measure employee satisfaction/engagement, evaluate employee performance) | 6.5% | 19.4% |
| Performance evaluation (monitor KPIs in real time, update plans and tactics based on results) | 5.6% | 25.8% |
| Customer service (chatbots/virtual assistants to provide 24/7 support, generate customer responses to client questions/comments) | 2.4% | 25.8% |
| Risk management (identify, evaluate, predict threats such as a downturn in the economy or key market and prepare mitigation plans) | 2.4% | 21.0% |
| n=124 Print Providers Source: PRINTING United Alliance State of the Industry Survey, First Quarter 2024 | | |

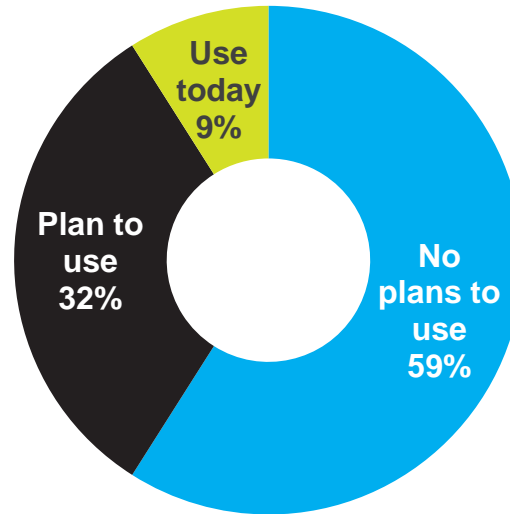
AI USE BY FUNCTIONAL AREA

Sales & Marketing



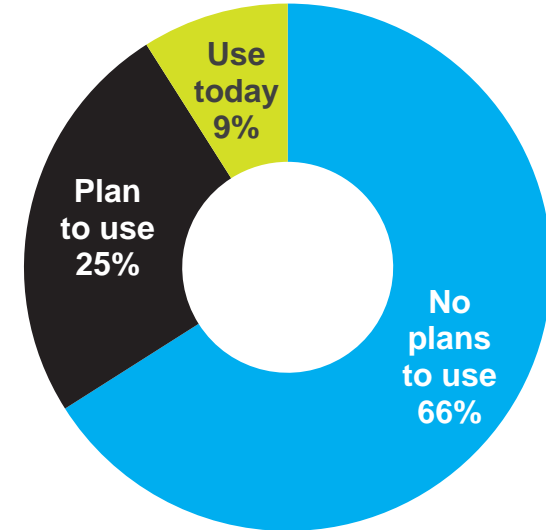
- Content creation
- Data analytics
- Analyzing customer feedback
- Analyzing client interactions
- Identifying sales prospects

Print Production



- Embedded in workflows
- AI-assisted print layout
- Press monitoring and adjustments
- AI in print management software

Operations Management



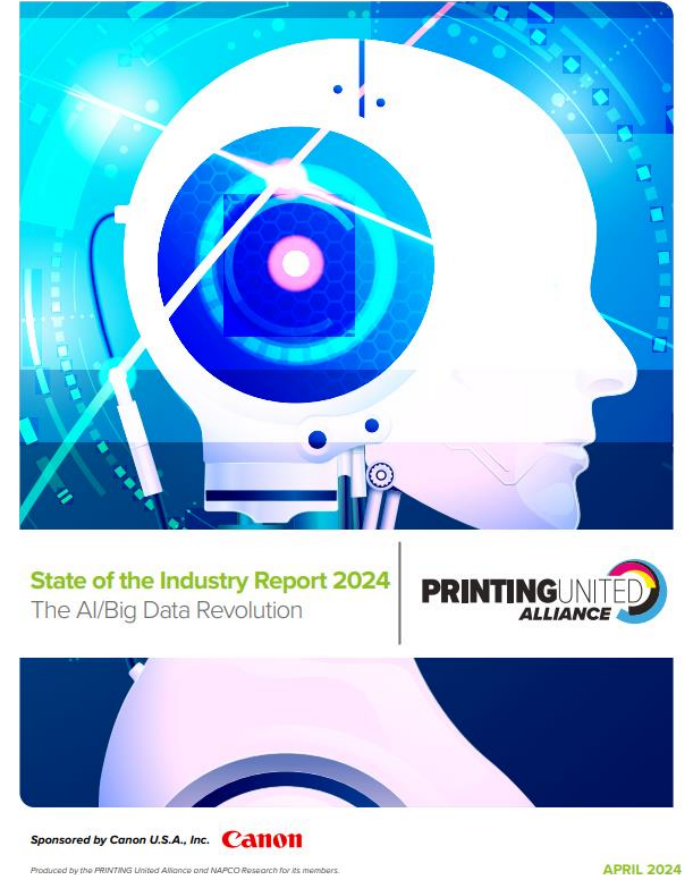
- Trends analysis and forecasting
- Email inbox management
- Cyber security
- Supply chain management/procurement
- Human resource applications

n=158 Commercial Print Providers
Source: NAPCO Research 2024

AI PRESENT AND FUTURE

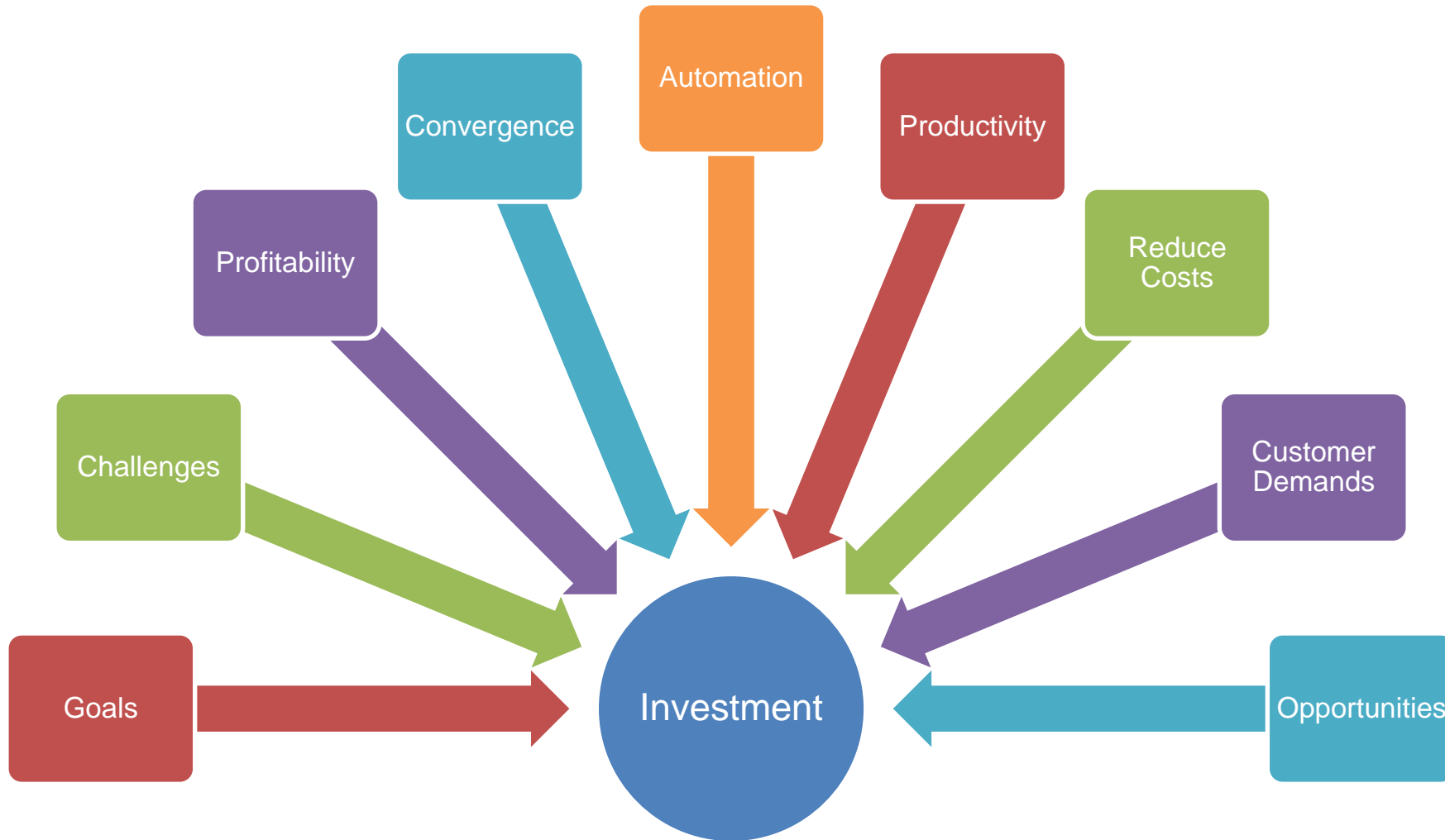
- Industry is just learning how to harness AI's power.
- **Today:** AI is primarily used today for content creation (blogs, emails, promotional materials, etc.).
- **Future:** Companies participating in the research expect usage to increase across a range of functions, including operations, sales, customer service, market analytics, HR, risk management, and cybersecurity.
- AI's ability to automate repetitive, low-value tasks will drive adoption.
- A printing executive interviewed for this study explains the importance of harnessing AI in this way: "We're in a very competitive industry, margins are thin and anything that we can give our team members to be a little more efficient and better at what they do offers an advantage."
- Not too late to learn about AI, even the experts are still learning!

READING RECOMMENDATION For AI Background, Also Read the Following Report



3. PRINT PROVIDERS INVESTING IN OPERATIONS

INVESTMENT INFLUENCERS



KEY PRINT PROVIDER CHALLENGES

| Commercial Printers Challenges Described as Critical/Moderate | Sign & Display Graphic Providers Challenges Described as Critical/Moderate | Apparel Decorators Concerns described as major |
|---|--|--|
| <ol style="list-style-type: none"> 1. Increasing labor costs 83% 2. Cost inflation 79% 3. Economy/overall business conditions 79% 4. Maintaining profitability 78% 5. Hiring production staff 72% 6. Customers decreasing use of print 69% 7. Increasing insurance costs 67% 8. Rising transportation costs 67% 9. Price competition 65% 10. Migration of print to electronic media 64% | <ol style="list-style-type: none"> 1. Hiring new sales reps 66% 2. Getting prospects to take sales calls 62% 3. Market pricing pressures 60% 4. Targeting the right contact in an organization 59% 5. Understanding what motivates prospects to buy 57% 6. Decreasing demand for printed signs & graphics 47% 7. Good sales reps leaving the company 39% 8. Sales staff resistance to promoting new products 30% 9. Generating job quotes promptly 23% | <ol style="list-style-type: none"> 1. Maintaining profitability 76% 2. The economy/overall business conditions 75% 3. Rising labor costs 59% 4. Increasing sales 56% 5. Maintaining productivity 56% 6. Rising consumable costs 51% 7. Rising energy costs 50% 8. Tighter credit /elevated interest rates 46% 9. Rising transportation costs 44% 10. Healthy cash/working capital balances 40% |
| n=173 Print Providers Source: NAPCO Research Annual Commercial Print Trends and Strategy Service, 2024 | n=47 Providers of digital wide-format color printing services Source: Selling Wide-format Printing, NAPCO Research 2024 | n=70 Apparel Decorators Source: State of the Decorated Apparel Industry, PRINTING United Alliance Spring 2024 |

WAYS PRINT PROVIDERS ARE INVESTING IN OPERATIONS

Print Providers

Our operation is...

1. Automating workflows **77%**
2. Expanding services (i.e., creative, data, mailing, fulfillment) to become a one-stop provider **74%**
3. Re-tooling operations to increase automation and productivity **64%**
4. Expanding product mix to include labels and/or packaging **58%**
5. Making investments in customer relationship management systems **56%**

n=173 Print Providers

Source: NAPCO Research Annual Commercial Print Trends and Strategy Service, 2024

Apparel Decorators

Actions to Improve Profitability

1. Develop New markets, products, services/diversify **73.9%**
2. Expand e-commerce capabilities **52.2%**
3. Control costs more effectively **45.7%**
4. Increase productivity via capital investment that supports automation, faster production **45.7%**
5. Add new decoration methods or technologies **34.8%**

n=46 Apparel Decorators

Source: State of the Decorated Apparel Industry, PRINTING United Alliance Spring 2024

4. AUTOMATION IS THE CORNERSTONE OF PROFITABILITY

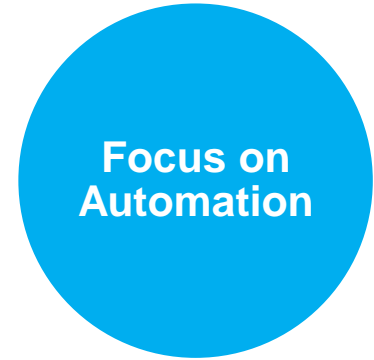
AUTOMATION: VITAL TO PRINT PROVIDER PROFITABILITY

Challenges

Increasing labor costs 83%
Hiring production staff 72%

Workflow bottlenecks 48%

Maintaining profitability 78%



Actions to Overcome Challenges

77% are automating workflows

64% are re-tooling operations to increase automation and productivity

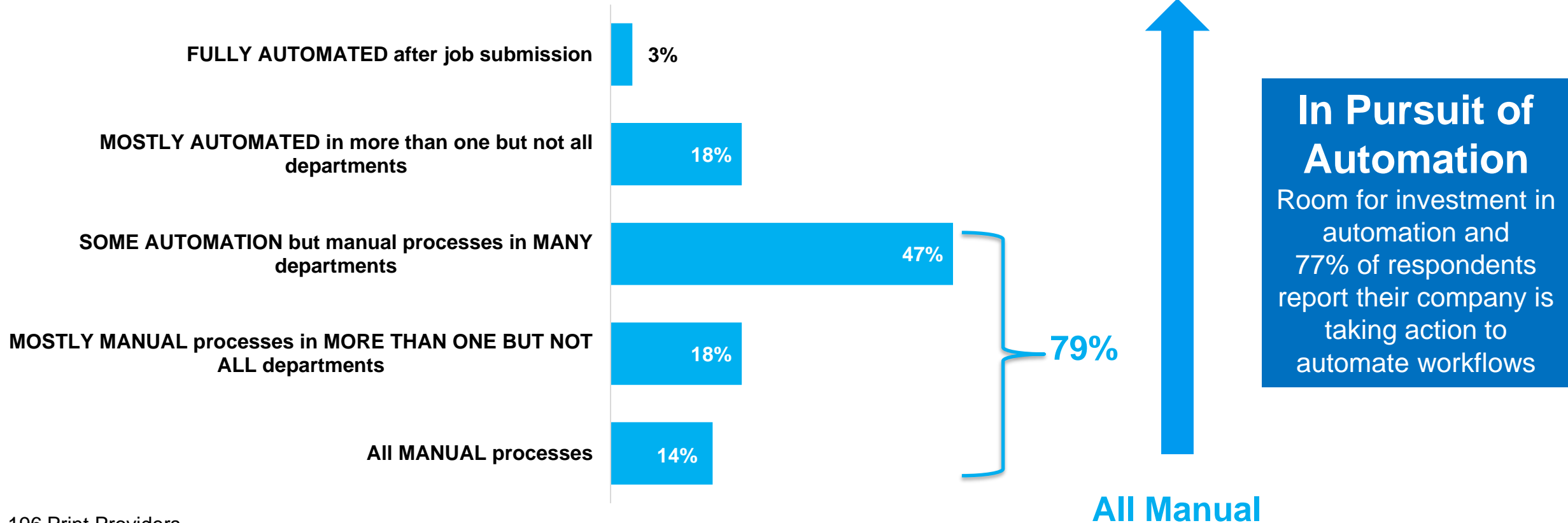
n=196 Print Providers

Source: NAPCO Research Annual Commercial Print Trends and Strategy Service, 2024

ROOM FOR INVESTMENT IN AUTOMATION

Q. What best describes your operation's level of workflow automation?

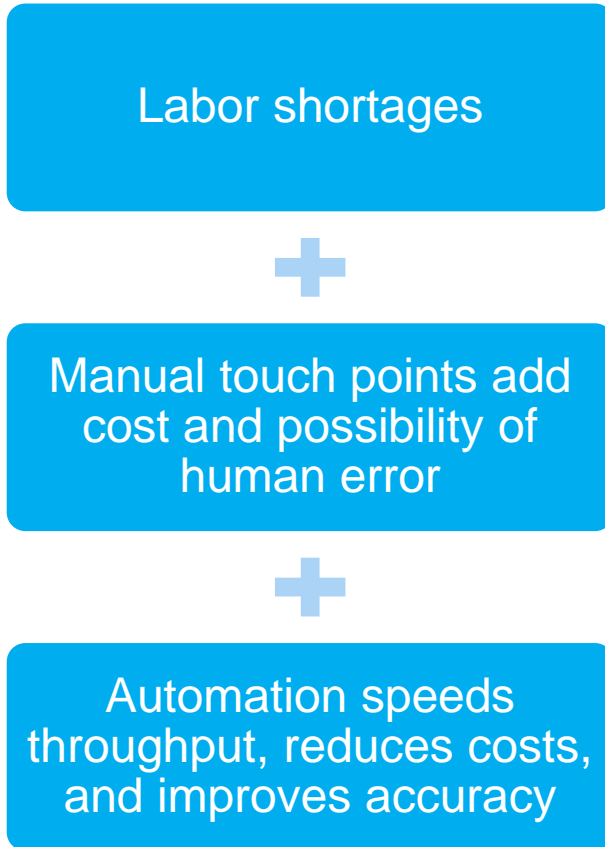
Definition: Fully Automated means that after a job enters the workflow it needs no further operator intervention to move through all production-related steps.



n=196 Print Providers

Source: NAPCO Research Annual Commercial Print Trends and Strategy Service, 2024

AUTOMATING TO MEET CUSTOMER DEMANDS

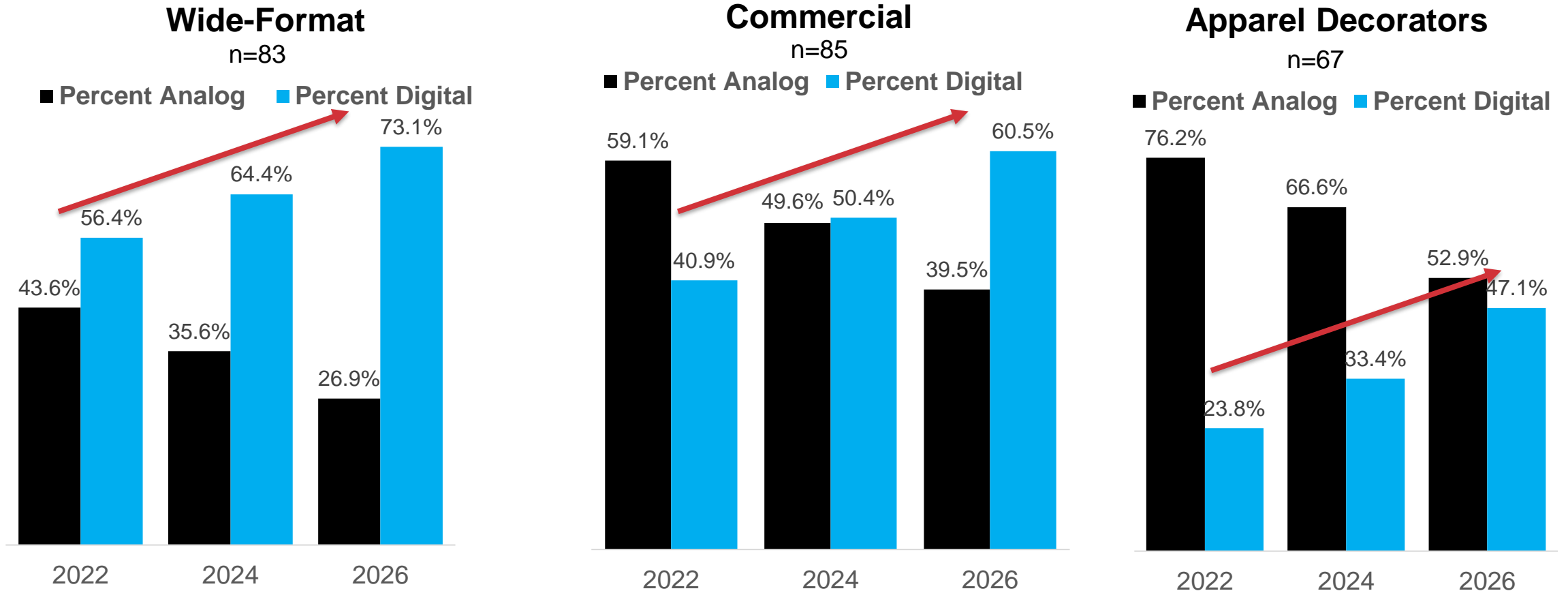


There is an industry-wide opportunity for investment in automation

5. ANALOG TO DIGITAL TRANSFORMATION ACCELERATING ACROSS ALL SEGMENTS

ANALOG TO DIGITAL TRANSITION

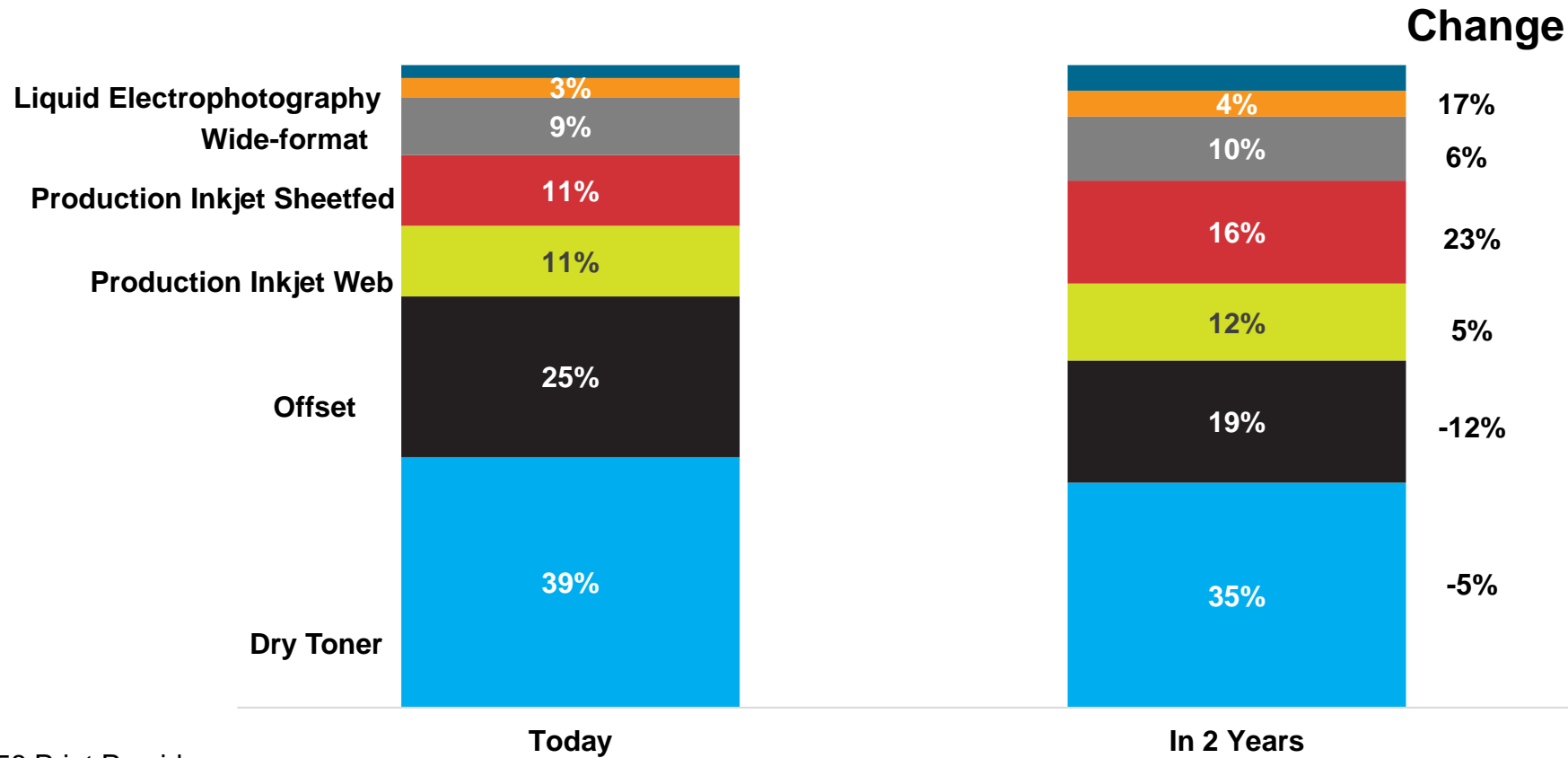
Q. Approximately what percent of your print production is/was/will be produced by analog technologies and digital technologies today, two years ago, and two years from now?



Source: PRINITING United Alliance Spring 2024 State of the Industry Research

ALL RESPONDENTS: WORK BY PRESS TYPE

Q. What percentage of your organization's print work is printed/do you expect will be printed on the following presses TODAY/in TWO years ago?



n=158 Print Providers

Source: The Production Inkjet Application Revolution, NAPCO Research 2024

DIGITAL PRINTING IS A GAME CHANGER FOR APPAREL

Verbatim Open-Ended Survey Responses; State of the Decorated Apparel Industry, PRINITING United Alliance 2024

- “Digital is the one thing that **will change everything**. No worries about potential chemical issues or regulations. It is **faster, cleaner, and now less expensive** to go digital.”
- “What DTG couldn't take from screen printing, DTF can for blanks like polyester. Any technology that connects the end user to the decorator could potentially be a GOOD disruptor. The **evolution that happened to ink-on-paper printing years ago is happening to apparel decoration**. Quantities will go down, customization will go up, and the once-coveted specialty things like matching colors and hand feel will go by the wayside so that the consumer can get it faster and with a smaller up-front investment.”
- “DTF will definitely start affecting larger screen printers. Cost of entry into that market is very cheap. **All you will need is a heat press and you are my competition.**”
- “Digital printing will become more affordable. However, it's got a long way to go. **We can buy five analog machines for what we'd spend on a digital machine and get twice the output. Our analog machines can be used 20 years later, while the digital machines lose their front-runner advantage after a year.** We are at least five years out before digital becomes economical, but then there's the quick drop off in quality. I don't expect to bring digital in house anytime in the short-to-medium-term future.”
- “Digital still has a way to go. There are **still too many limitations, but everyone thinks they're an artist (Canva, Sigma, etc.) and everyone with a heat press thinks they're a printer, so I believe as DTF gets better it will be the big thing.**”

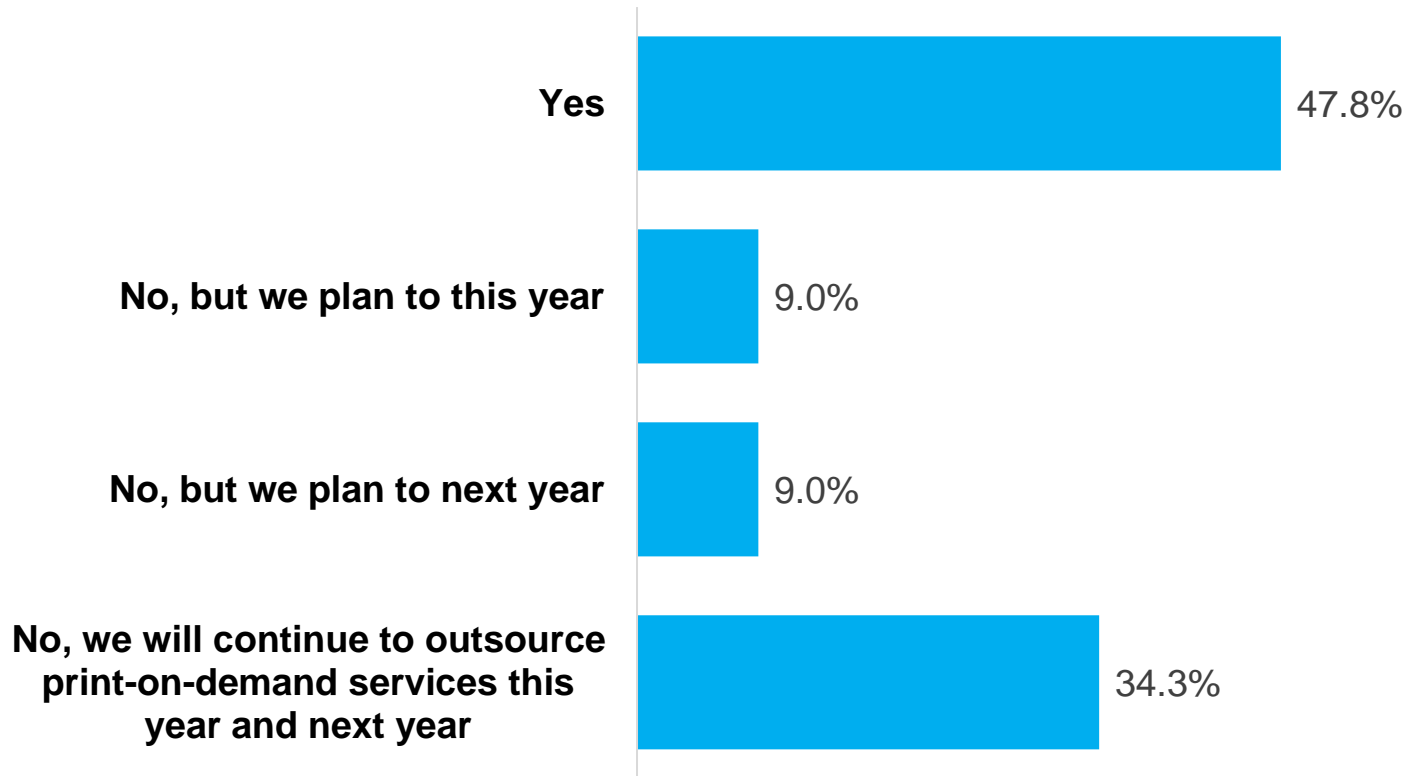
n=67 Apparel Decorators

Source: State of the Decorated Apparel Industry, PRINITING United Alliance Spring 2024

DECORATORS OFFERING PRINT-ON-DEMAND SERVICES

Q. Do you currently offer print-on-demand services in-house?

Definition: Print-on-demand (POD) is a business model where products, such as apparel, accessories, or home decor, are produced when an order is received.



n=67 Apparel Decorators

Source: State of the Decorated Apparel Industry, PRINTING United Alliance Spring 2024

Key Findings

- **Factors Propelling POD Growth**
 - Sustainability
 - Technologies such as direct-to-film (DTF) and direct-to-garment (DTG)
 - E-commerce
 - Low entry barriers
- All participants offering POD expect sales to increase this year, 21% on average..
- **Verbatim open-ended survey response**, “The POD space is rapidly expanding. Clients are demanding customization more than ever. DTF will continue to open-up opportunities to sell decoration on things, as an embroidery replacement for shops that previously didn't try to decorate or sell those items.”

6. CUSTOMERS DRIVING DEMAND FOR E-COMMERCE OPTIONS

CUSTOMERS PREFER PROVIDERS WITH AUTOMATION OPTIONS

Print Customer Preferences

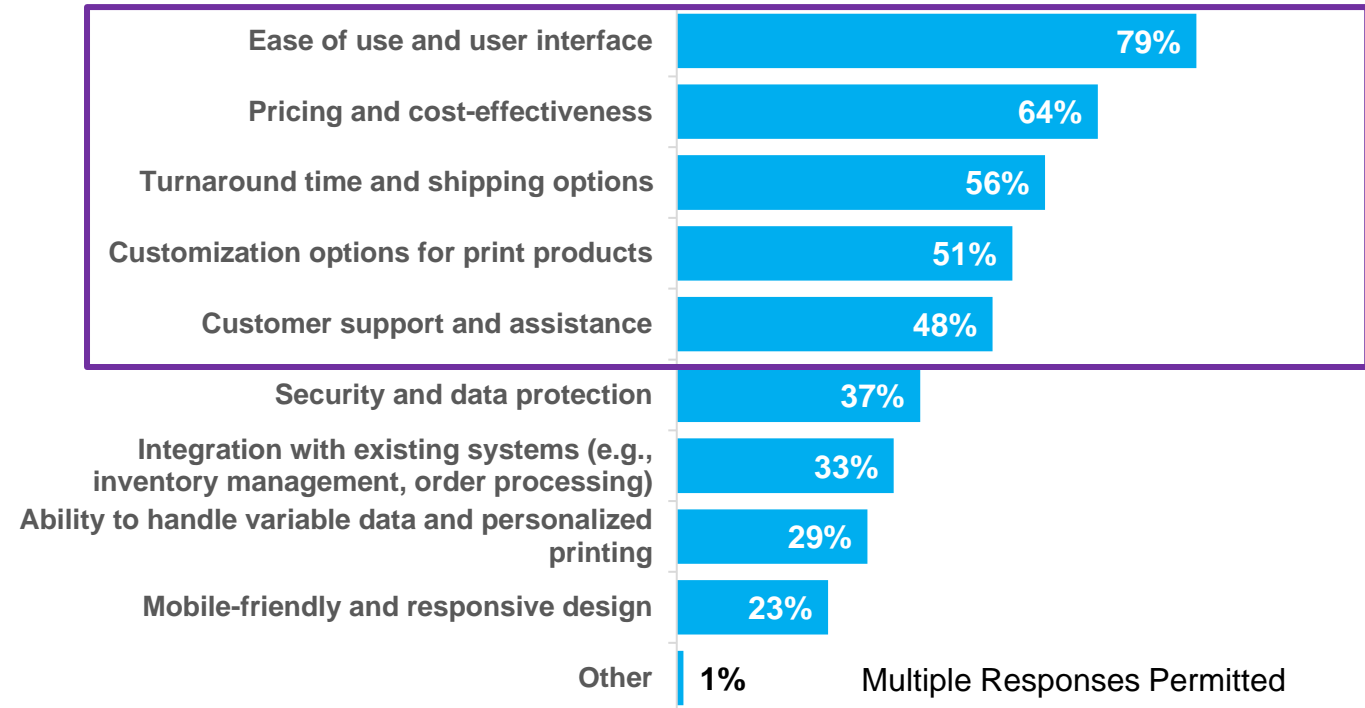
- 82% prefer print providers that offer online ordering options that enable controlling print spending and brand management*
- 60% report managing and ordering print products via a customized online ordering portal provided by their print provider*
- 75% of buyers prefer to work with sign and display graphic providers that offer online ordering **

*n=167 Communication Buyers and Influencers
Source: NAPCO Research 2024

**n = 111 Purchasers or Purchase Influencers of Sign and Display Graphics
Source: Who Buys Wide-format Display Graphics, NAPCO Research 2023

Important Online Ordering Features

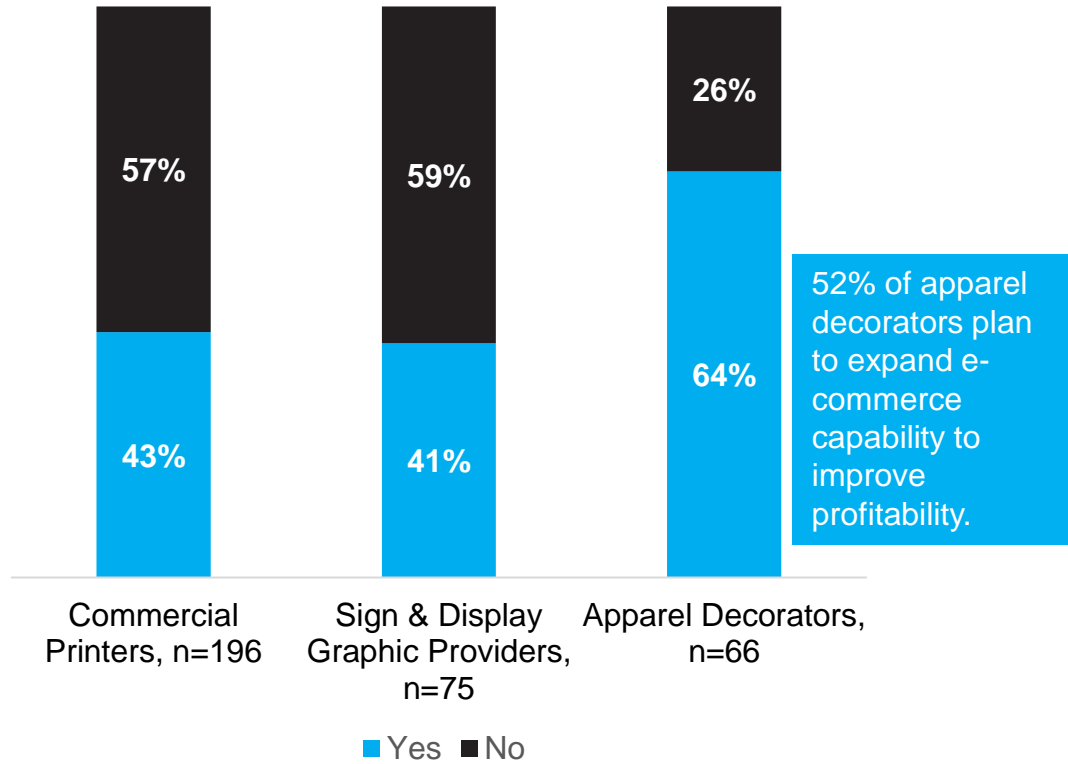
Q. What features do you consider most important in your online ordering platform?



n=100 Communication Buyers and Influencers respondents that manage and order print products via a customized online ordering portal provided by their print provider
Source: NAPCO Research 2024

OFFER CUSTOMIZED WEB/ECOMMERCE PORTALS

Offering Customers Customized Online Portals



Source: NAPCO Research and PRINTING United Alliance Surveys, 2024

Benefits from Offering

- Shortened customer buying process **89%**
- Strengthened customer relationships **88%**
- Increased sales from current clients **81%**
- Increased print order volume **75%**
- Enabled organization to go after and win larger clients **75%**
- Enabled product and service expansion **67%**
- Reduced labor costs **67%**
- Protected from customer vendor consolidations **63%**

n=72 Print Providers that offer Web Portals

Source: Source: NAPCO Research Annual Commercial Print Industry Trends and Strategies Service, 2024

7. LABOR CHALLENGES PERSIST

■ INTENSE COMPETITION FOR LABOR

- Two-thirds of sign and display graphic providers report hiring sales staff is a critical/moderate challenge.*
- 72% of commercial printers report hiring production staff is critical/moderate challenge and 63% report the same for sales staff. **

*Sources: *Selling Wide-format Printing, NAPCO Research 2024, ** NAPCO Research Annual Commercial Print Trends and Strategy Service, 2024



TIPS TO ATTRACT AND RETAIN TOP TALENT

Printing Impressions

Eight Tips to Attract and Retain Top Talent



By **Adriane Harrison**

1. Inspire Your Team
2. Pay Fair and Competitive Wages
3. Provide a Career Pathway Within the Company
4. Use Flexible Scheduling Whenever Possible
5. Build Trust Through Transparency
6. Provide Top-Notch Benefits
7. Recognize Employee Excellence and Milestones
8. Create Company Mission and Values Statements — and Live by Them

To Read the Full Article

www.piworld.com/article/eight-tips-to-attract-and-retain-top-talent/

WHAT'S YOUR EMPLOYER BRAND AND VALUE PROPOSITION?



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PRINTING United Expo Event

- First Impressions Matter: How to Get Job Candidates to “Swipe Right” on Your Company, Tuesday, September 10, 4:00 pm to 4:45 pm , Adriane Harrison, Vice President, Human Relations Consulting at PRINTING United Alliance

8. SUSTAINABILITY: BOTH A CHALLENGE AND OPPORTUNITY

SUSTAINABILITY EFFORTS HAVE TAKEN HOLD

Print Buyers and Influencers

- Sustainability is a key factor in our organization's print buying decision **69%***
- Printed materials produced by sustainable methods will be more important to our organization in the future **91%****
- Green/environmentally sustainable production processes is an important consideration when selecting a sign and display graphics provider **62%*****

*n=167 Communication buyers and influencers; Source: Production Inkjet Delivers, NAPCO Research 2024

**n=316 North American communication buyers and influencers, Source: NAPCO Research Annual Commercial Print Industry Trends and Strategies Service, 2023

***n=120 Purchasers or purchase influencers of sign and display graphics; Source: Who Buys Sign and Display Graphics, NAPCO Research 2023

Print Providers

69% of commercial printers focused on *improving their organization's environmental sustainability.**

49% of sign and display graphic providers offer **“green”/eco-friendly wide-format printing**, *such as printing recyclable/biodegradable substrates or using more environmentally friendly inks.***



*n=104 North American Commercial Printers; Source: NAPCO Research Annual Commercial Print Industry Trends and Strategies Service, 2023

**n=73 Sign and Display Graphic Providers; Source: Who Buys Sign and Display Graphics, NAPCO Research 2023

THE REGULATORY SIDE OF SUSTAINABILITY

BUSINESS MANAGEMENT, CONSUMABLES - INK

Carbon Black Survives Assault Ban in New York State

June 11, 2024 at 1:36 pm

EPR legislation failed to pass the NY State Legislature. It wasn't voted on in the Assembly before the legislature adjourned for 2024.

BUSINESS MANAGEMENT

PRINTING United Alliance Leads the Charge for the Industry to Prevail Over Washington State's Effort to Ban Printing Inks

May 1, 2023 at 10:54 am

The Alliance's action of identifying a catastrophic bill in Washington state that would have banned certain inks prevailed.

BUSINESS MANAGEMENT

New York State Assembly Considering Ban on Carbon Black, Most Common Pigment in Black Ink

February 20, 2024 at 11:44 am

This could be devastating for the package and label printing industry, since carbon black is the most common pigment used in black ink.

BUSINESS MANAGEMENT

Proposed Ban on Chlorinated Pigments in Ink Will Devastate Printing in Washington State

April 14, 2023 at 3:22 pm

A proposed Washington state bill amended to include a ban of all printing inks that use chlorinated pigments would be devastating.

PRINTING UNITED ALLIANCE SUSTAINABLY RESOURCES



ABOUT US LOGIN

Membership Library Events Communities Tools Programs & Services Newsroom

JOIN

Home > Library > Business Excellence > Sustainability

Sustainability

PRINTING United Alliance recognizes that today's global marketplace requires companies to address the needs of the environmental, social, and economic systems in which they operate, as well as the strong consumer demand for more sustainable products. A business strategy focusing on sustainability can add brand value, meet customer demands, increase efficiency, reduce costs, attract valuable talent, improve your environmental footprint, and create new business opportunities. The printing industry is committed to responsibly providing for future generations. Join us on the journey.



Gary Jones

Vice President of Environmental, Health, and Safety Affairs

[Hire This Expert](#)

Gary A. Jones is the Vice President of Environmental, Health and Safety (EHS) Affairs at PRINTING United Alliance in Fairfax, VA. His primary responsibility is to monitor and analyze EHS regulatory activities at all domestic and some international government [more](#)



Sara Osorio

Environmental, Health and Safety Affairs Coordinator PRINTING United Alliance

[Hire This Expert](#)

Sara Osorio is the Environmental, Health and Safety (EHS) Affairs Coordinator at PRINTING United Alliance. Her primary responsibility is to assist members with EHS regulatory compliance, sustainability, and EHS consulting. Sara also [more](#)

Carbon Footprint Calculator

PRINTING United Alliance's Carbon Footprint Calculator for Printing Operations is designed to help you quantify the 'E' of environmental impact in ESG and demonstrate your sustainability progress. The tool allows you to calculate your Scope 1 and 2 emissions data and report it as carbon dioxide equivalents (CO2e).

The carbon footprint calculator is one of the Alliance's [sustainability tools](#) that can help you create business value.

[DOWNLOAD THE CARBON FOOTPRINT CALCULATOR](#)

Extended Producer Responsibility (EPR)

Extended Producer Responsibility (EPR) laws shift the costs associated with recycling plastic and paper packaging and in some instances, printed paper products, to the producer of the product by imposing a fee based on the amount of product. PRINTING United Alliance can help your company navigate the complexities involved with EPR compliance. The Alliance is closely monitoring proposed and passed legislation at the state and federal level, and our state EPR legislative summaries provide detailed guidance for your business.

[LEARN MORE](#)

Environment, Social, Governance (ESG)

PRINTING United Alliance recognizes that integrating key considerations of Environmental, Social, and Governance (ESG) components into business policies and practices plays a central role in the successful growth of the print and packaging marketplace. The Alliance offers resources to help your company create enterprise value and manage ESG objectives.

[LEARN MORE](#)

Energy Efficiency, Renewable Energy, and Reducing Carbon Footprint

The field of energy has been rapidly changing since the creation of technology that reduces demand or produces renewable energy. Printing establishments, both large and small, can learn how to reduce their carbon footprint and achieve energy efficiency using renewable energy resources. Learn about the benefits of reducing your carbon footprint, and funding opportunities available to help offset the costs.

[LEARN MORE](#)

<https://www.printing.org/library/business-excellence/sustainability>

■ UPCOMING RESEARCH STUDY

The Economic Advantages of Sustainability in Print

- **Two-pronged sustainability research study:**
 1. Economic Benefits of Sustainability for Printers
 2. Starting the Sustainability Journey
- In-depth **surveys of printers and buyers, along with extensive interviews** of industry experts
- This report will provide **actionable insights for industry stakeholders** in doing the following:
 - Improving their sustainability record
 - Marketing their sustainability efforts and accolades to win business
 - Taking the practical steps needed to be prepared for a future in which a lack of sustainability will be punitive.



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FINAL THOUGHTS

■ INVESTMENT WILL BE THE PATHWAY TO PROFITABILITY

- **Sales are growing modestly and profit margins are under pressure** as cost inflation outpaces price increases.
- **Profitable growth will go to those firms that:**
 - **Maximize productivity** companywide
 - **Build and leverage superior data analytics to make the best decisions**
 - **Balance investment in transformative technologies** with business fundamentals.
- **Industry disruptors and influencers will come in many varieties including AI, regulations, big data, sustainability,** and those yet to be determined. Capital Investment will be key in meeting market challenges and supporting profitable and sustainable growth, especially technologies that automate processes and tasks.
- **Convergence continues to reshape the industry,** and print providers are moving into adjacent markets and making investments to diversify against decreasing print use, offer customers a single-source provider, expand sales, and build stronger customer relationships.
- **AI adoption has begun and is the early stages but poised to be the next big disruptor** and tool for profitability and growth. Time to investigate, educate customers, and implement AI.
- **The future presents new challenges and opportunities BUT** industry organizations that strategize, plan, invest, and take actions will be in the best position to reap profits, enhance operational efficiency, attract and retain talent, win customers, and succeed.

■ HOW WILL YOU HELP YOUR CUSTOMERS?

- Define a customer path to profitable...productivity, diversification, efficiency, and growth
- Show the way to increase efficiencies and reduce risk
- Be a partner, not a vendor
- Base actions on customers concerns
- Educate, educate, educate
- Provide tools and services to support customers

- 1. Build Trust**
- 2. Earn Loyalty**
- 3. Grow Your Customers' Businesses**

Thank You!

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