CANON SOLUTIONS AMERICA

ENHANCING THE PRINT
CUSTOMER CONNECTION
ADVANCING
PRODUCTIVITY AND
SERVICE DELIVERY

A NAPCO Research Study and White Paper
Sponsored by Canon U. S. A., Inc.

Advancing Productivity and Service Delivery

Commercial printers that can continually satisfy buyer demands for quality, productivity, fast turnaround, color consistency, and ongoing communication can help build strong customer relationships that competitors cannot easily break.
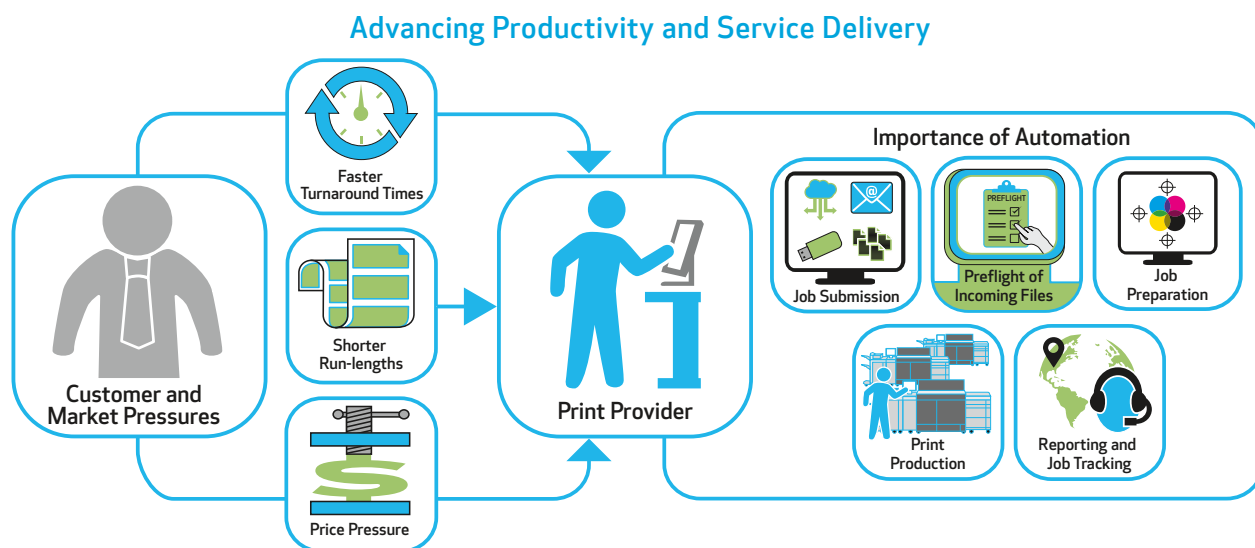
A vital tool for meeting communication buyers' productivity and service delivery expectations is print workflow automation. Automated print production workflows enhance customer experiences because they help reduce costs, improve productivity and color consistency, optimize communication investments, and meet requirements for fast turnaround.

Looking to define and understand the best practices and methods for improving the print provider/customer connection, a 2021 NAPCO Research* study and white paper series, sponsored by Canon U.S.A. Inc., offers insights into job submission trends, customer communication requirements, workflow automation, and the many business and productivity benefits generated by enhanced customer connectivity.

The overarching theme of *Enhancing the Print Customer Connection* is that communication buyers expect virtually seamless and transparent experiences with their print providers — from job quotes through delivery. More automated print production workflows help ensure that all stages of the production process are performing at peak efficiency for print providers and customers.

One benefit of workflow automation is that it can help improve customer experiences. The goal is to create efficiencies that lead to more capacity, lower costs, and higher profitability. Automation helps printers to reduce touch-points, allowing jobs to move through production more quickly while also reducing the errors and costs associated with having to rework them.

In addition, automation helps increase productivity, improve print quality, minimize production bottlenecks, enhance service delivery, and improve customer satisfaction. This report will highlight communication buyers' print provider requirements and expectations, commercial printers' challenges in meeting client needs, and the role of automation in enhancing productivity and service delivery.

Advancing Productivity and Service Delivery

Faster Turnaround Times

Shorter Run-lengths

Price Pressure

Customer and Market Pressures

Print Provider

Importance of Automation

Job Submission

Preflight of Incoming Files

Job Preparation
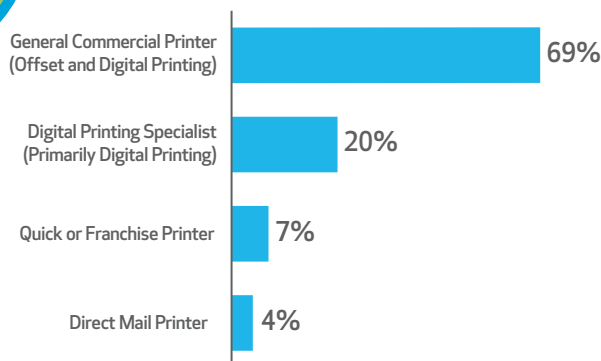
Print Production

Reporting and Job Tracking

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* A unit of NAPCO Media, the parent company of Printing Impressions and In-Plant Impressions.

Over 200 Print Providers and Print Buyers Surveyed

The study surveyed 193 commercial printers, 80 in-plants, and 211 communication buyers to assess print job submission and production trends across the print supply chain. This report focuses solely on commercial printers. Figure 1 describes the types of printers participating in the survey.

Figure 1
Commercial Printer Respondent Profiles

Primary Business

General Commercial Printer (Offset and Digital Printing)	69%
Digital Printing Specialist (Primarily Digital Printing)	20%
Quick or Franchise Printer	7%
Direct Mail Printer	4%

Q. Which category best describes your company's PRIMARY business?
N = 193 Commercial Printers

Employees

- 250 or More: 7%
- 100 to 249: 12%
- 50 to 99: 13%
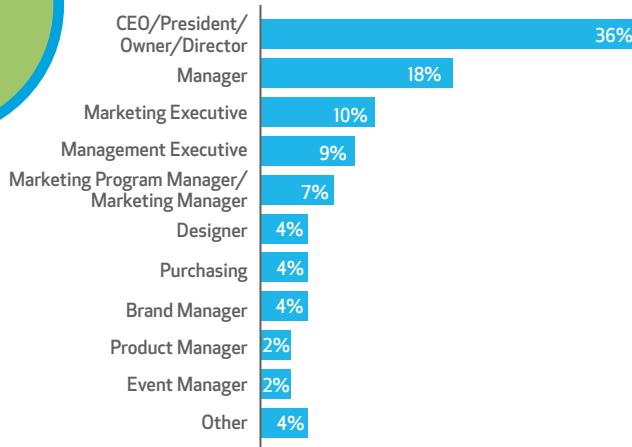- 1 to 9: 36%
- 10 to 49: 32%
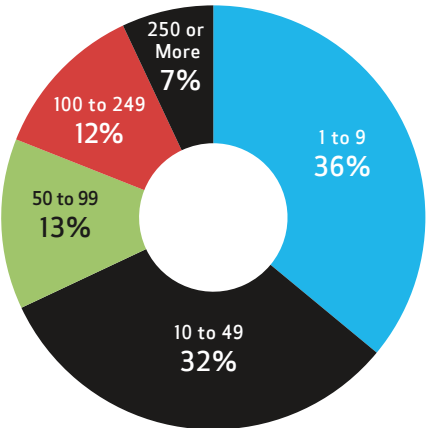
Q. How many employees work at your company or in-plant?
N = 193 Commercial Printers

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Over 200 communication buyers (print buyers and influencers) participated in the survey. Respondents hold top-level or key management positions and work at organizations representing a mix of sizes, with most employing over 100 people (Figure 2).

Figure 2
Communication Buyer Respondent Profiles

Job Titles

CEO/President/Owner/Director	36%
Manager	18%
Marketing Executive	10%
Management Executive	9%
Marketing Program Manager/Marketing Manager	7%
Designer	4%
Purchasing	4%
Brand Manager	4%
Product Manager	2%
Event Manager	2%
Other	4%

Q. Which of the following describes your role in your organization?
N = 211 Communication Buyers and Influencers

Number of Employees

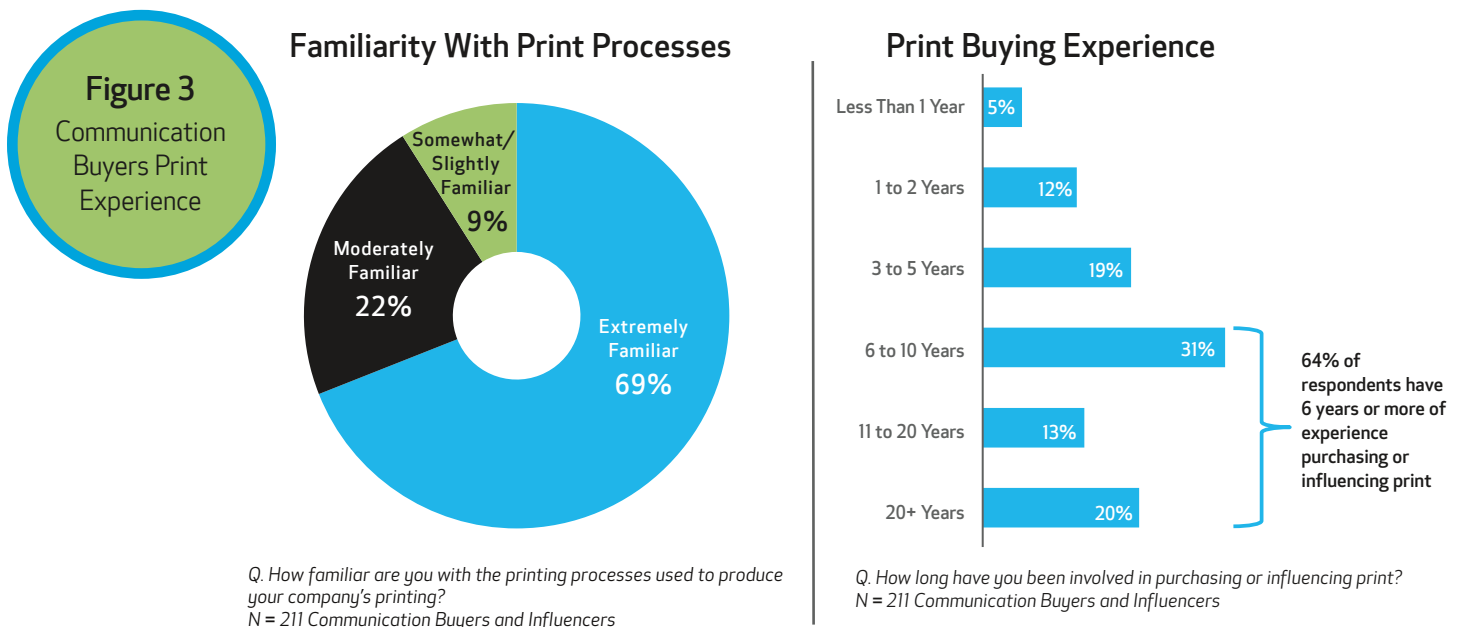|	
Fewer Than 19	14%
20 to 99	7%
100 to 399	18%
400 to 999	26%
1,000 or More	35%
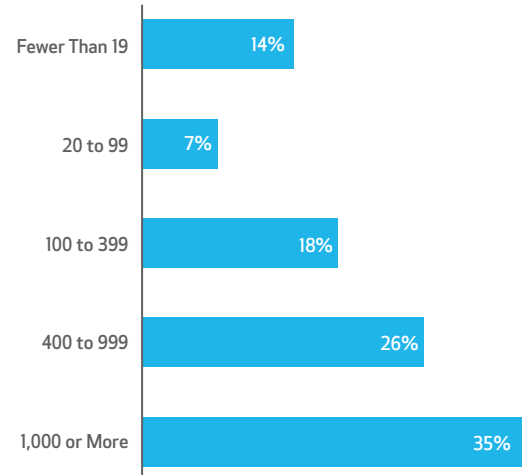
Q. In total, how many people does your organization employ?
N = 211 Communication Buyers and Influencers

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

To qualify to take the survey, communication buyer respondents needed to either purchase or influence print and be familiar with the methods used by their organizations to submit print jobs. Two-thirds of respondents (69%) report they're extremely familiar with the printing processes used to produce their organizations' print work, while 22% are moderately familiar, and 9% are somewhat/slightly familiar (Figure 3).

The majority of communication buyer respondents (64%) have been involved in purchasing or influencing print for six years or more.

Two-thirds of respondents (66%) report having an in-house printing operation.

Figure 3
Communication Buyers Print Experience

Familiarity With Print Processes

Somewhat/Slightly Familiar
9%

Moderately Familiar
22%

Extremely Familiar
69%

Q. How familiar are you with the printing processes used to produce your company's printing?
N = 211 Communication Buyers and Influencers

Print Buying Experience

Less Than 1 Year	5%
1 to 2 Years	12%
3 to 5 Years	19%
6 to 10 Years	31%
11 to 20 Years	13%
20+ Years	20%

64% of respondents have 6 years or more of experience purchasing or influencing print

Q. How long have you been involved in purchasing or influencing print?
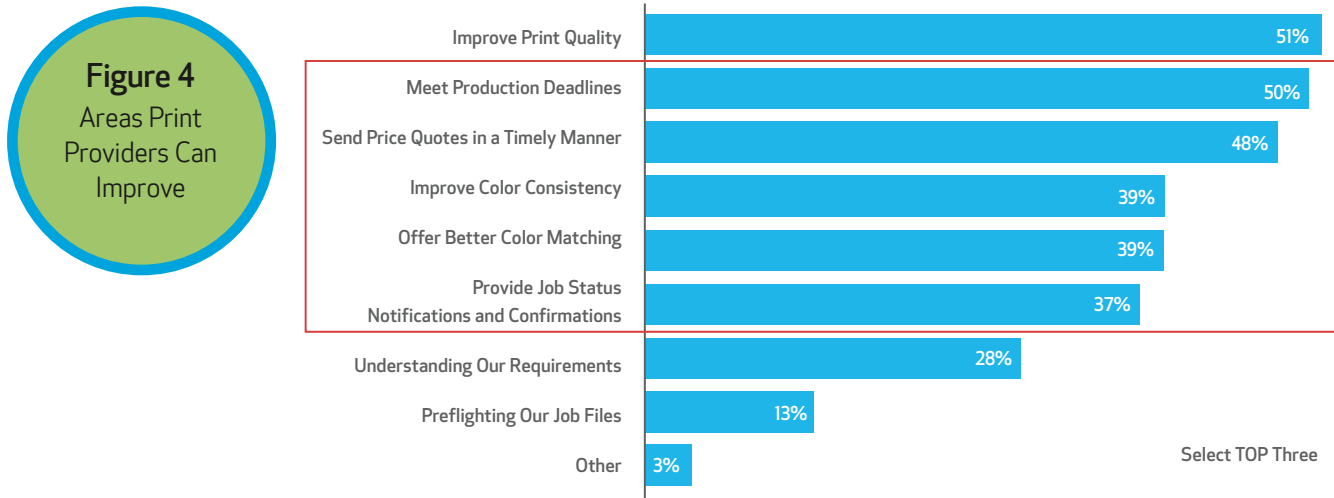*N = 211 Communication Buyers and Influencers*

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Buyers Expect Providers to Deliver High Levels of Productivity and Service

The survey asked communication buyer respondents to identify the top three areas in which their print providers can improve. While the leading response was print quality, other key priorities center on productivity and service delivery (Figure 4). Buyers report print providers can do a better job at meeting production deadlines, sending price quotes in a timely manner, improving color consistency and matching, and communicating job status.

Nearly all communication buyers (94%) participating in the survey reported that they value having access to immediate price quotes for print work.
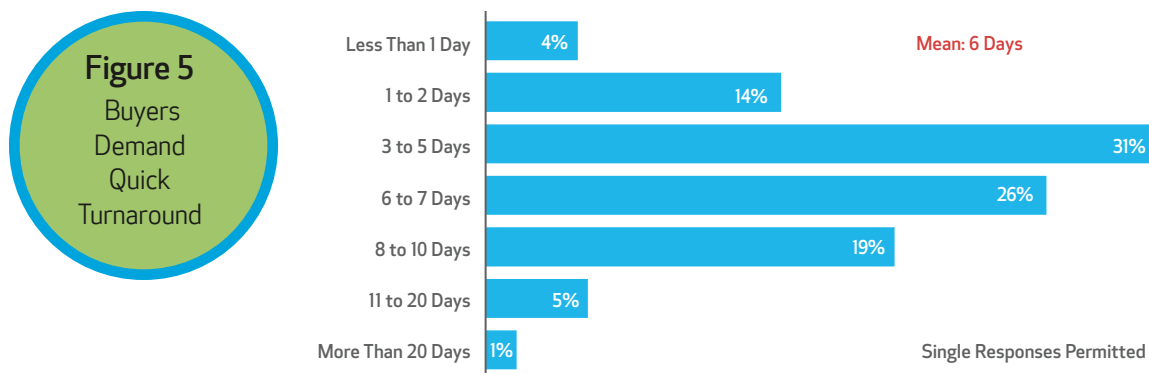
Figure 4
Areas Print Providers Can Improve

Improve Print Quality	51%
Meet Production Deadlines	50%
Send Price Quotes in a Timely Manner	48%
Improve Color Consistency	39%
Offer Better Color Matching	39%
Provide Job Status Notifications and Confirmations	37%
Understanding Our Requirements	28%
Preflighting Our Job Files	13%
Other	3%

Select TOP Three

Q. What are the top areas where your print provider(s) can improve in producing your jobs?
N = 211 Communication Buyers and Influencers

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Another survey response pointing to buyer requirements for working with print providers that offer high productivity is the average turnaround time required for producing work. Communication buyer respondents report the average turnaround time for their print work is six days, with 49% reporting five days or less (Figure 5).

Workflow automation supports print providers in meeting customer requirements for fast turnaround, better communication, and quality.

Figure 5
Buyers Demand Quick Turnaround

Less Than 1 Day	4%
1 to 2 Days	14%
3 to 5 Days	31%
6 to 7 Days	26%
8 to 10 Days	19%
11 to 20 Days	5%
More Than 20 Days	1%

Mean: 6 Days

Single Responses Permitted

Q. What is the average turnaround time you require for your print work?
N = 211 Communication Buyers and Influencers that specify the printing process used to print their materials
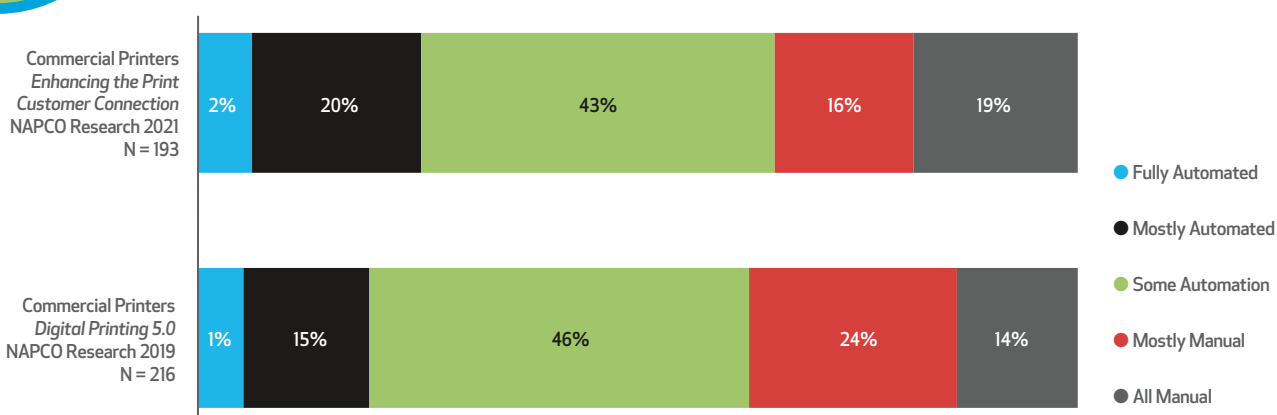
Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Commercial Printers' Challenges in Productivity and Service Delivery

Commercial printer respondents report that while their operations have some level of automation, there's room to expand. Figure 6 compares how commercial printers participating in the current survey and those in the NAPCO Research and Canon U.S.A. 2019 *Digital Printing 5.0* survey describe their operations' levels of automation. While these increased from the prior survey, there's still opportunity to increase workflow automation. Even a modest degree of automation can go a long way in improving production speed and productivity.

Figure 6
Automation Levels Current vs. Previous Survey

Fully automated means that after a job enters the workflow, it needs no further operator intervention to move through all production-related steps.
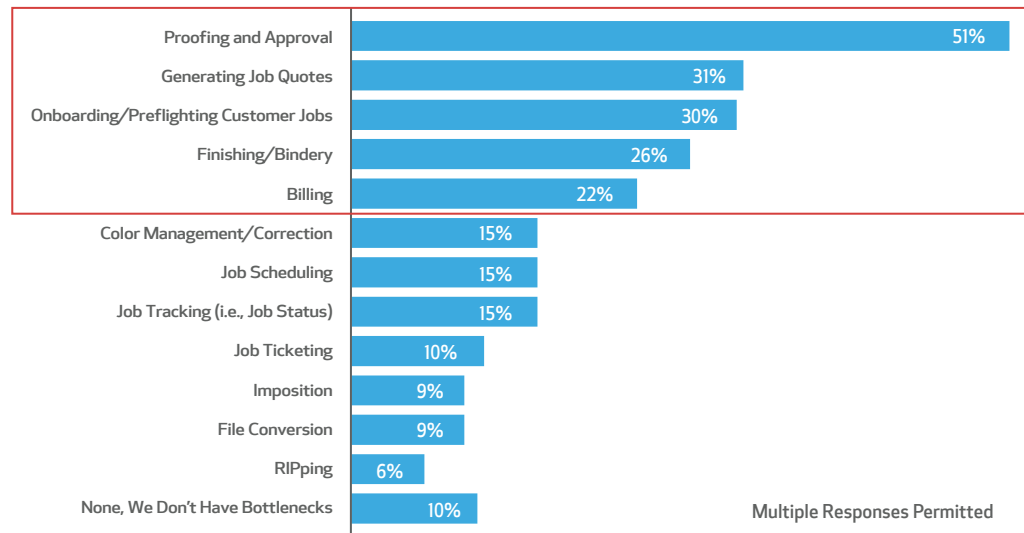
	Fully Automated	Mostly Automated	Some Automation	Mostly Manual	All Manual
Commercial Printers *Enhancing the Print Customer Connection* NAPCO Research 2021 N = 193	2%	20%	43%	16%	19%
Commercial Printers *Digital Printing 5.0* NAPCO Research 2019 N = 216	1%	15%	46%	24%	14%

● Fully Automated
● Mostly Automated
● Some Automation
● Mostly Manual
● All Manual

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

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

The commercial printer survey asked respondents to identify the key bottlenecks impeding production workflow results. Commercial printer respondents identified proofing and approval, generating job quotes, onboarding customer jobs, finishing and bindery, and customer billing as their top five workflow bottlenecks (Figure 7). These production obstacles align with communication buyers' beliefs on what their print providers can improve. Doing a better job at generating job quotes can address buyer respondents' requirement for more timely price quotes.

In addition, finding ways to improve customer onboarding and file submission can help increase productivity, reduce errors, and enhance quality.

Figure 7
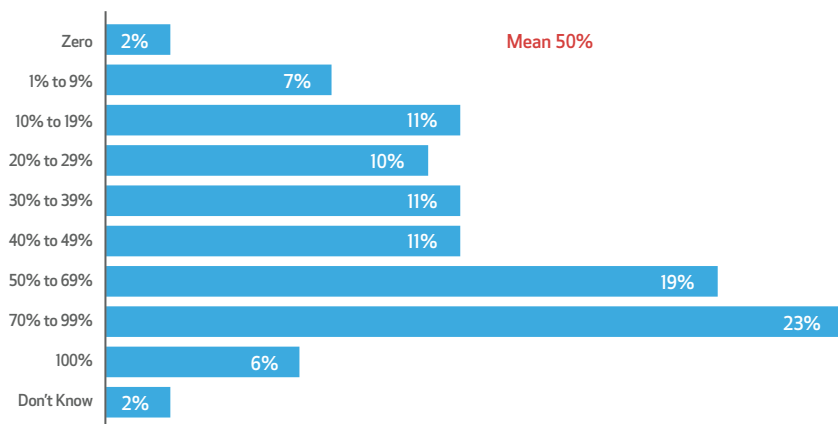Commercial Printers' Workflow Bottlenecks

Category	Percentage
Proofing and Approval	51%
Generating Job Quotes	31%
Onboarding/Preflighting Customer Jobs	30%
Finishing/Bindery	26%
Billing	22%
Color Management/Correction	15%
Job Scheduling	15%
Job Tracking (i.e., Job Status)	15%
Job Ticketing	10%
Imposition	9%
File Conversion	9%
RIPping	6%
None, We Don't Have Bottlenecks	10%

Multiple Responses Permitted

Q. Which of the following areas present bottlenecks in your print production workflow?
N = 193 Commercial Printers

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Close to one-third of commercial printers indicate that onboarding customer jobs is a bottleneck in their print productions workflows (Figure 7). Another survey finding highlighting the file-onboarding challenge is the percentage of incoming customers' jobs that are not print-ready. Respondents report that half of incoming customer job files for digital printing require some type of prepress preparation (Figure 8).

Figure 8
Percentage of Job Files Requiring Prepress Preparation

Mean 50%

Category	Percentage
Zero	2%
1% to 9%	7%
10% to 19%	11%
20% to 29%	10%
30% to 39%	11%
40% to 49%	11%
50% to 69%	19%
70% to 99%	23%
100%	6%
Don't Know	2%

Q. What percentage of incoming customer job files for digital printing require some type of prepress preparation to make the file print-ready?
N = 193 Commercial Printers

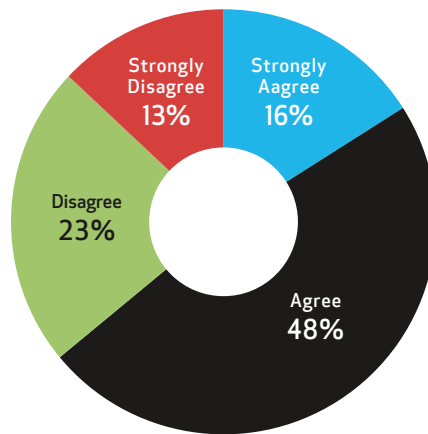*Source: Enhancing The Print Customer Connection, NAPCO Research 2021*

Two additional print providers' file-onboarding challenges include not having preflighting tools that automatically check customer files (36%, Figure 9) and that job quotes often underestimate the time needed to fix customer files (57%, Figure 10).

Figure 9

Investment in File Prefight Tools

Q. What is your level of agreement: We have tools that automatically check/preflight submitted customer job files to ensure they're print-ready and meet specifications.
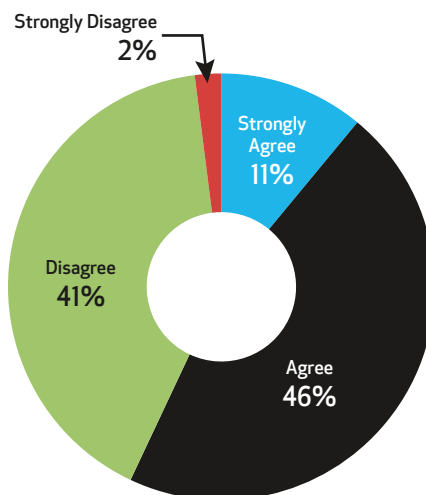

Strongly Disagree 13%
Strongly Aagree 16%
Disagree 23%
Agree 48%

N = 193 Commercial Printers
Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Figure 10
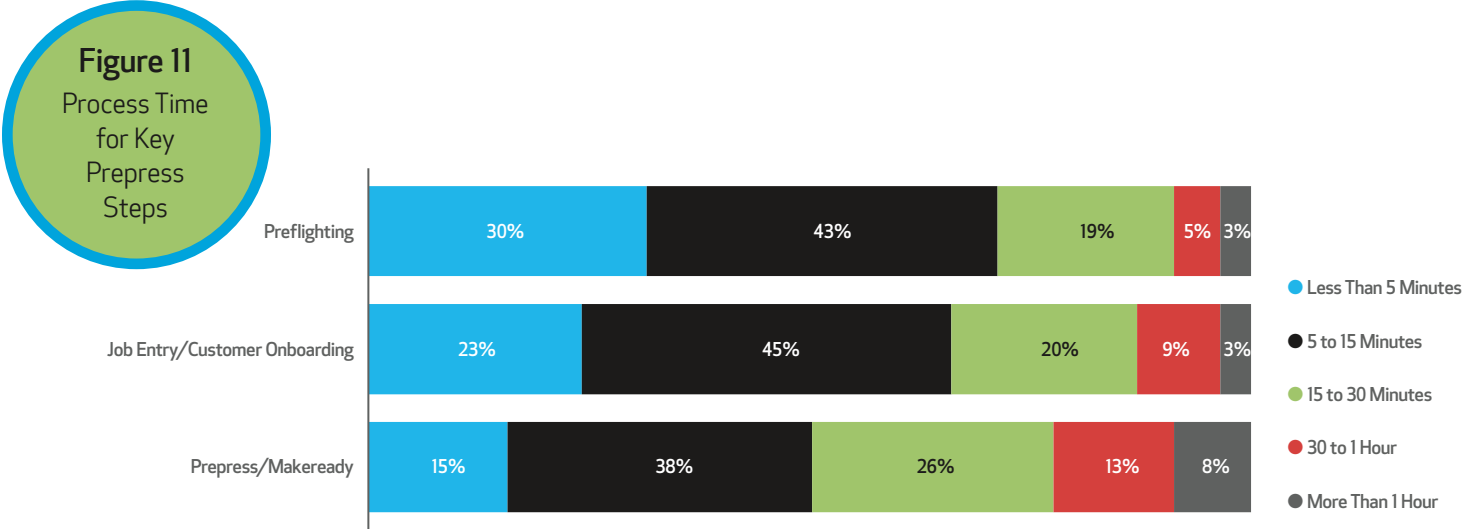
Do Job Estimates Underestimate Fixing Customer Files?

Q. What is your level of agreement: Our job estimates/quotes often underestimate the time required to fix customer files and set up jobs.

Strongly Disagree 2%
Strongly Agree 11%
Disagree 41%
Agree 46%

N = 193 Commercial Printers
Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Another key survey finding pointing to the value of investing in automation is the amount of time commercial printer respondents required for essential steps in creating print-ready files. As shown in Figure 11, commercial printer respondents reported that, when creating print-ready files, prepress took the most time—on average, 23 minutes—with preflighting files taking 14 minutes, and job entry/onboarding, 16 minutes.

Figure 11
Process Time for Key Prepress Steps

	Less Than 5 Minutes	5 to 15 Minutes	15 to 30 Minutes	30 to 1 Hour	More Than 1 Hour
Preflighting	30%	43%	19%	5%	3%
Job Entry/Customer Onboarding	23%	45%	20%	9%	3%
Prepress/Makeready	15%	38%	26%	13%	8%

Q. What is the average time required for each of the following steps in creating a print-ready file?
N = 193 Commercial Printers

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Focusing on workflow methods and tools that support high levels of productivity can result in overcoming the challenges identified by survey respondents and better meeting customer expectations. Ongoing evaluation and automation of workflow processes—from job receipt to preflighting, prepress, and production—is a best practice to consider.

Automation Is Essential for Improving Customer Experiences
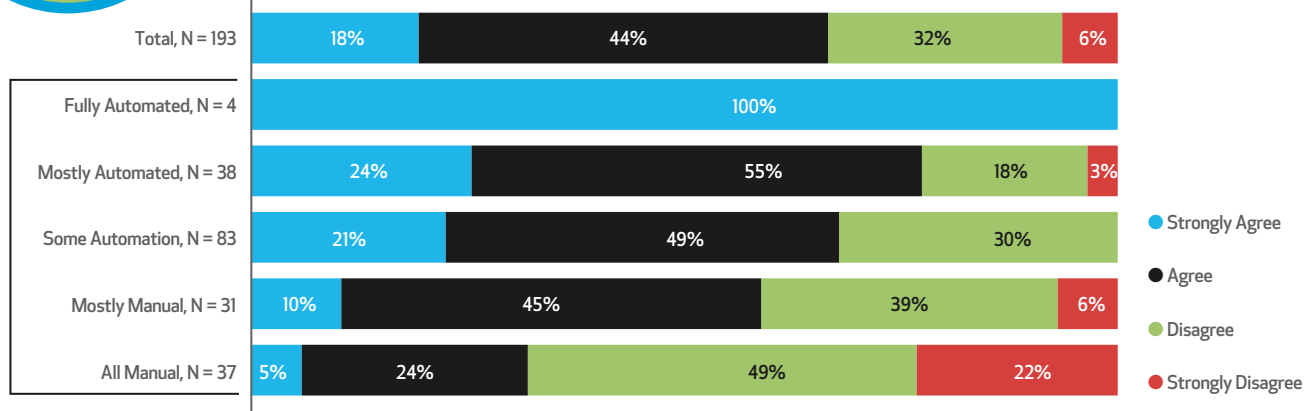
Close to two-thirds (62%) of commercial printer respondents indicate that automation is the single most important element keeping their operations profitable (Figure 12). The key goal of an automated print workflow is to ensure that all stages of the production process are performing at peak efficiency and delivering benefits to print providers and customers.

Figure 12
The Importance of Automation

Q. What is your level of agreement: Automation is the single most important element in keeping a print provider operating in the black today.

Responses Segmented by Level of Automation

	Strongly Agree	Agree	Disagree	Strongly Disagree
Total, N = 193	18%	44%	32%	6%
Fully Automated, N = 4	100%			
Mostly Automated, N = 38	24%	55%	18%	3%
Some Automation, N = 83	21%	49%	30%	
Mostly Manual, N = 31	10%	45%	39%	6%
All Manual, N = 37	5%	24%	49%	22%

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Automation can yield profitable results. NAPCO Research's 2019 *Digital Printing 5.0* survey of commercial printers found that those reporting double-digit sales growth had higher levels of automation. Automation helps to improve the customer experiences and meet their demands for quality, turnaround, color consistency, and real-time job status visibility and connectivity.

Workflow automation is based on the idea that every step in a printing job can be digitally linked to other steps, creating a chain of programmed events that keep the job moving continuously ahead toward completion. Ideally, this chain of events extends all the way from order intake to delivery of the finished product, generating streams of data that track the job, monitor its costs, and yield insights into making the production of subsequent jobs even more efficient.

Automation takes many forms. It can be as simple as a system that handles basic prepress functions, such as images and files that are uploaded to a server for preflighting, or as complex as a cloud-based platform that automates the entire workflow.

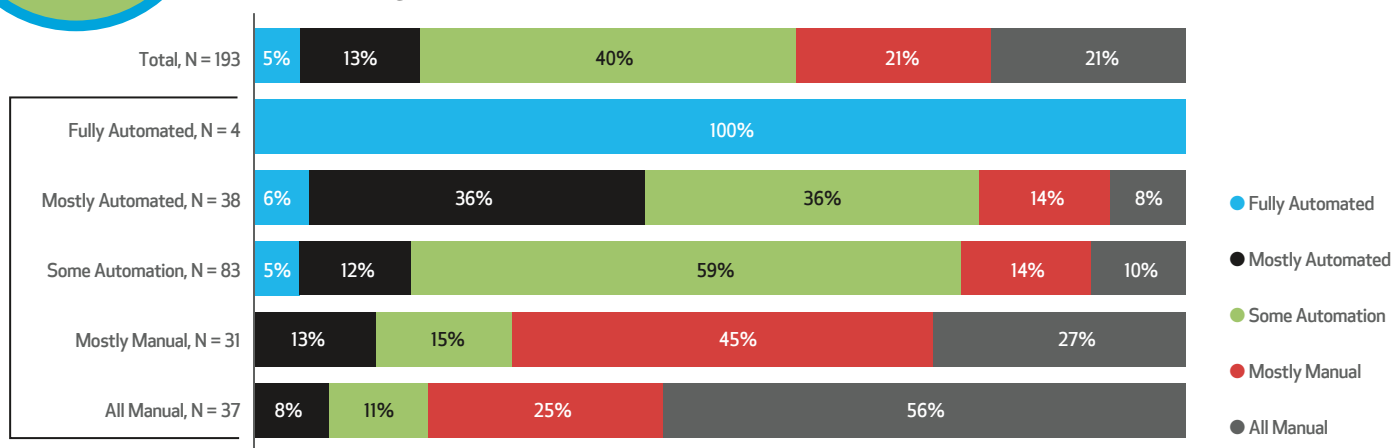## Workflow Automation Starts with Job Submission

Automating job submission makes the process of placing orders more convenient for customers. Almost three-quarters of communication buyer respondents (72%) identified the ability to place print orders at any time as highly valuable.

The survey asked commercial printer respondents to best describe their operations' level of automation for customer job submission. Figure 13 shows the responses to this question segmented by the automation level of respondents' printing operations. Overall, 5% of total respondents report order submission is fully automated, while 53% describe it as mostly or somewhat automated.

Figure 13
Level of Automation for Order Submission

Q. What best describes your operation's level of automation for order submission?

Responses Segmented by Level of Automation

Segment	Fully Automated	Mostly Automated	Some Automation	Mostly Manual	All Manual
Total, N = 193	5%	13%	40%	21%	21%
Fully Automated, N = 4	100%				
Mostly Automated, N = 38	6%	36%	36%	14%	8%
Some Automation, N = 83	5%	12%	59%	14%	10%
Mostly Manual, N = 31		13%	15%	45%	27%
All Manual, N = 37		8%	11%	25%	56%

Legend:
- Fully Automated
- Mostly Automated
- Some Automation
- Mostly Manual
- All Manual

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

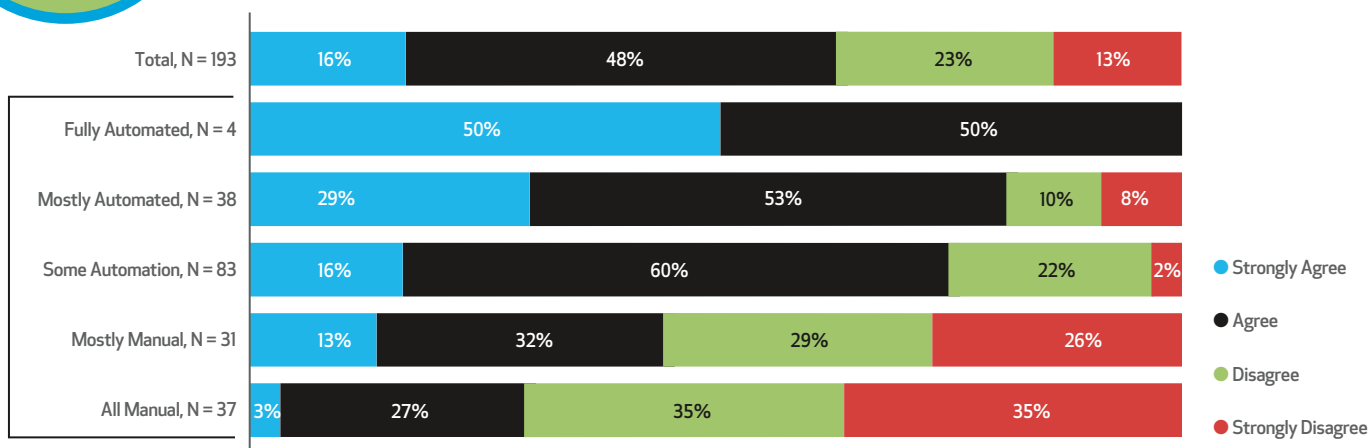## Preflighting Reduces Errors and Increases Productivity

Another important part of job onboarding is examining or checking the job file for technical issues that could potentially cause problems with the actual printing of the job. By preflighting files, production staff can identify issues before accepting the job or processing it for printing.

Respondents reporting higher levels of automation are more likely to have tools that automatically check customer-submitted job files to ensure they're print-ready (Figure 14). Automating manual file-checking can reduce the chance of human error, deliver better print quality, and improve productivity.

Figure 14
More Automated Firms Invest in Preflighting Tools

Q. What is your level of agreement: We have tools that automatically check/preflight submitted customer job files to ensure they're print-ready and meet specifications.
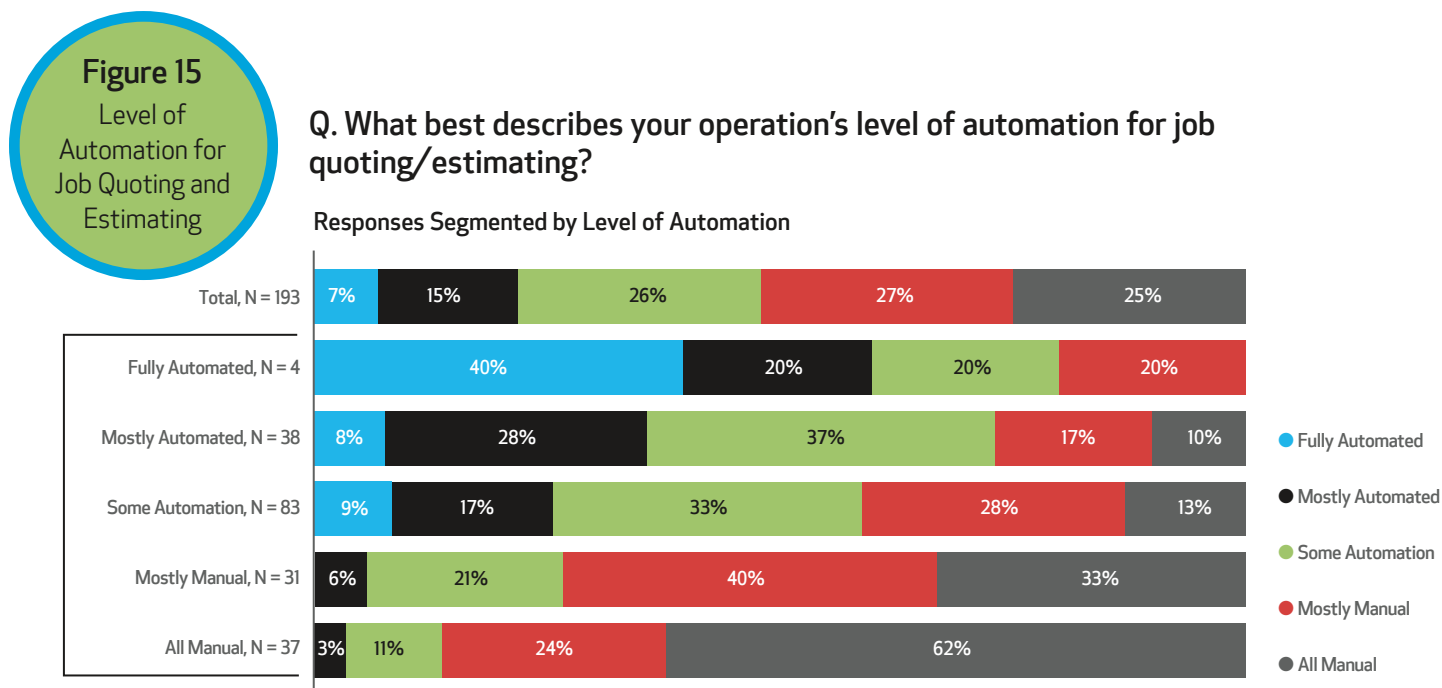
Responses Segmented by Level of Automation

	Strongly Agree	Agree	Disagree	Strongly Disagree
Total, N = 193	16%	48%	23%	13%
Fully Automated, N = 4	50%	50%		
Mostly Automated, N = 38	29%	53%	10%	8%
Some Automation, N = 83	16%	60%	22%	2%
Mostly Manual, N = 31	13%	32%	29%	26%
All Manual, N = 37	3%	27%	35%	35%

● Strongly Agree
● Agree
● Disagree
● Strongly Disagree

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Automation Enhances Estimating and Customer Communication

As previously noted, generating job quotes is a top bottleneck for commercial printers. Providers that invest in software to automate estimates can speed this process and deliver job quotes faster. Commercial printer respondents working at organizations with more automation report a higher incidence of having fully or mostly automated processes in place for job quoting and estimating (Figure 15).

Figure 15
Level of Automation for Job Quoting and Estimating

Q. What best describes your operation's level of automation for job quoting/estimating?

Responses Segmented by Level of Automation

Segment	Fully Automated	Mostly Automated	Some Automation	Mostly Manual	All Manual
Total, N = 193	7%	15%	26%	27%	25%
Fully Automated, N = 4	40%	20%	20%	20%	
Mostly Automated, N = 38	8%	28%	37%	17%	10%
Some Automation, N = 83	9%	17%	33%	28%	13%
Mostly Manual, N = 31		6%	21%	40%	33%
All Manual, N = 37		3%	11%	24%	62%

Legend:
- Fully Automated
- Mostly Automated
- Some Automation
- Mostly Manual
- All Manual

Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Automated job quoting software typically uses set criteria, so there are fewer variables for estimating production costs. Print providers with more automated estimating methods can quickly provide accurate quotes, which, in turn, can lead to faster customer work approvals and sales.

Another core benefit of print workflow automation is it can eliminate costly miscommunications. For example, automated job tracking and reporting keeps customers up to date on job status. In this study, 98% of communication buyer respondents value real-time print job tracking, status, and approval notifications. Figure 16 shows commercial printer respondents' level of automation for job tracking and reporting.

Figure 16
Level of Automation for Job Tracking and Reporting

Q. What best describes your operation's level of automation for reporting/job tracking?

Responses Segmented by Level of Automation

Legend:
- ● Fully Automated
- ● Mostly Automated
- ● Some Automation
- ● Mostly Manual
- ● All Manual

	Fully Automated	Mostly Automated	Some Automation	Mostly Manual	All Manual
Total, N = 193	9%	19%	33%	21%	18%
Fully Automated, N = 4	40%	20%	20%	20%	
Mostly Automated, N = 38	15%	35%	35%	13%	2%
Some Automation, N = 83	8%	20%	43%	21%	8%
Mostly Manual, N = 31	3%	12%	31%	39%	15%
All Manual, N = 37		8%	14%	19%	59%
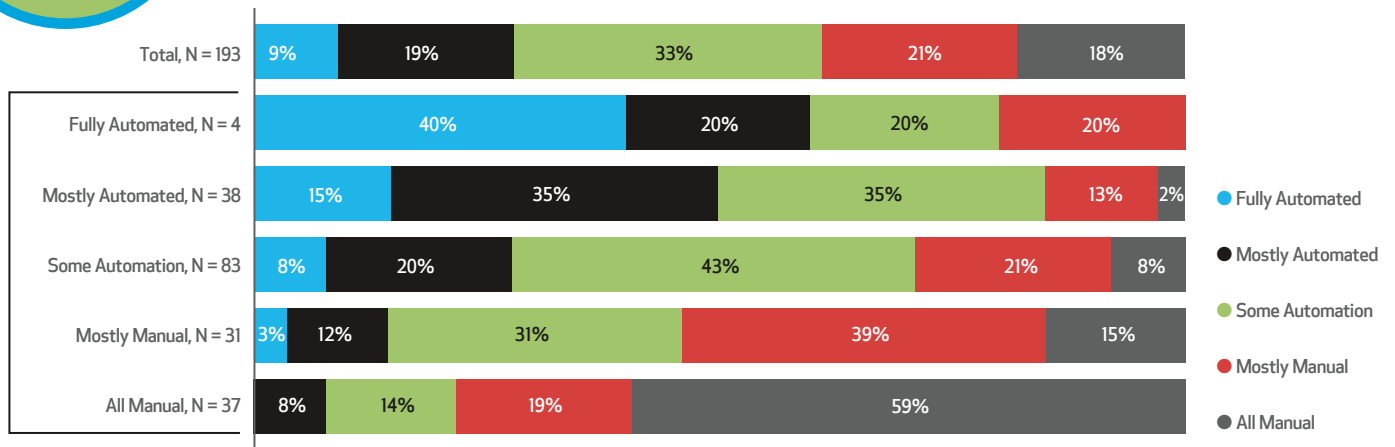
Source: Enhancing The Print Customer Connection, NAPCO Research 2021

Conclusion

Workflow automation offers commercial printers the ability to help enhance productivity, services, and customer relationships. Ongoing action to automate workflow processes—from job receipt to preflighting to reporting—is a best practice to consider for improving customer experiences, job profitability, and print production productivity.

Commercial printers that devote resources to automating workflows are investing in their operations' growth potential. A key benefit of automation is that it breaks bottlenecks—the inefficiencies and constraints of manufacturing that hamper productivity and profits. The extent to which a business is automated has a strong influence on how likely it will be to reach its sales and profitability goals.

A common characteristic of successful commercial printing companies is a never-ending pursuit to increase productivity, improve quality, and better serve customers. This quest makes automation an indispensable part of the printing industry. Workflow automation is a tool that can help enhance productivity, service delivery, and the print customer's experience.

About Enhancing the Print Customer Connection

Enhancing the Print Customer Connection is a series of thought-leadership content pieces based on a NAPCO Research survey of communication buyers, commercial printers, and in-plants that was sponsored by Canon.

1. Delivering Client Experiences that Build Competitive Advantage
2. The Job Submission Challenge – Onboarding Your Customers
3. Navigating a New Customer Environment
4. Advancing Productivity and Service Delivery
5. Strengthening the Value of the In-Plant

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