



Production Inkjet Market Survey on Ink Estimating Solutions

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Executive Summary

Inkjet Insight recently completed a survey of production inkjet users on their use of ink estimating tools. The goals of the survey were twofold; first, to understand customers' access to and usage of ink estimating tools and second, to measure satisfaction with their ink estimating processes options. Responses were limited to those that had production inkjet installed and estimating software available to them. Data received from respondents with inkjet and without estimating software in use were excluded and retained for further analysis.

We first queried participants about the types of work performed on their inkjet presses. We then moved on to their access to, and usage of, ink estimating tools as well as their perceived difficulty. Participants were also asked about their ink estimating practices as well as the strengths and weaknesses they find with ink estimators.

Key Findings

- 79% of respondents considered the ink estimating process to be important or very important to their overall estimating process.
- Of the respondents that had access to ink estimators through their OEM, internally development or third party tools, only 18% do not use them.
- 66% of respondents with an ink estimating tool in use found their software simple to very simple to use. Only 11% considered their solution to be difficult or very difficult to use and half of those respondents had developed their own ink estimator internally.
- 67% of respondents had access to free ink estimating tools provided by their OEM with the average ease of use for OEM provided estimators being 4.18 out of 5.
- Third party ink estimators had the highest ease of use rating with 4.40 out of 5.
- 81% indicated that there were particular types of jobs where ink estimating has helped them compete more effectively.
- The top two reasons for not wanting to use ink estimating tools were that the estimated results are not consistent with the actual results and the coverage on jobs is too variable.
- Responses covered participants who reported working with a wide range of OEMS including Canon, Durst, EFI, Fujifilm, HP, Kodak, Konica Minolta, Kyocera, MCS, Monotech, Ricoh, RISO, Screen, Xerox and others. Many participants had presses from more than one inkjet OEM and some used more than one ink estimating tool.

This report includes recommendations for owners of production inkjet when evaluating ink estimating tools and approaches. Recommendations for OEMs on improving communication with customers and supporting data-driven decision is also provided. It is the perspective of Inkjet Insight, supported by customer research, that there are opportunities for improvement in the current ink estimator market that would benefit customers and print buyers.

Introduction

This report is based on a survey of production inkjet users conducted in late 2020 that sought feedback on the ease of use for existing ink estimation tools. Participants were asked to rank ease of use on a scale of 1-5 with 1 being *Very Difficult to Use* and 5 being *Very Simple to Use*. Participants were also asked to rank the importance of ink estimating tools in their overall estimating process on a scale from 1-5 with 1 being *Not Important* and 5 being *Extremely Important*.

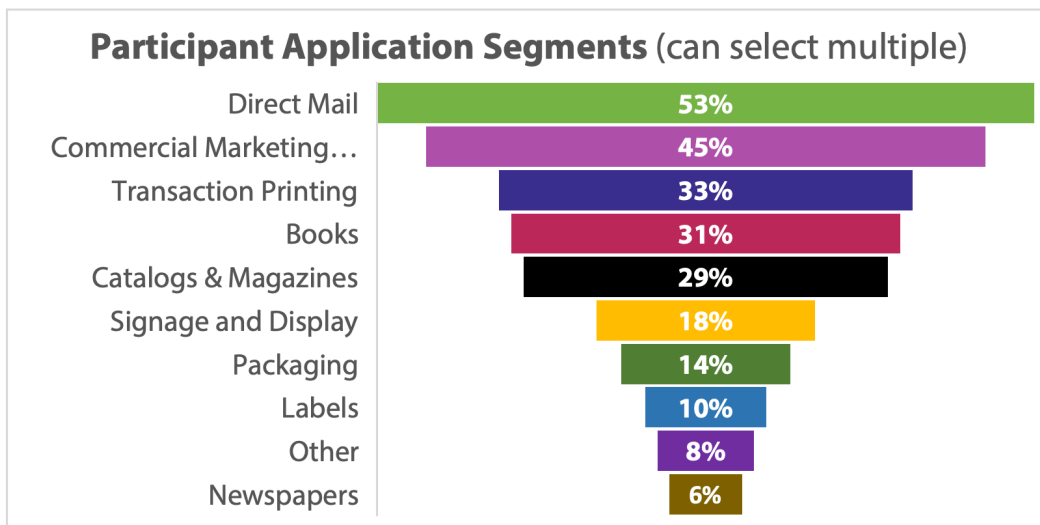
Participants were also asked about:

- The type of work performed on their inkjet presses
- The percentage of new jobs run through their ink estimating software
- If ink estimating practices vary based on the type of work being done
- Whether ink estimating has allowed them to be more competitive
- Any tactical or strategic values gained from using ink estimators
- Reasons for not using ink estimating tools

Participant Demographics

Survey participation was limited to current inkjet users with estimating solutions available to them and included users from all over the world. Respondents represented numerous major application segments with the majority indicating that they use inkjet to provide services in multiple segments.

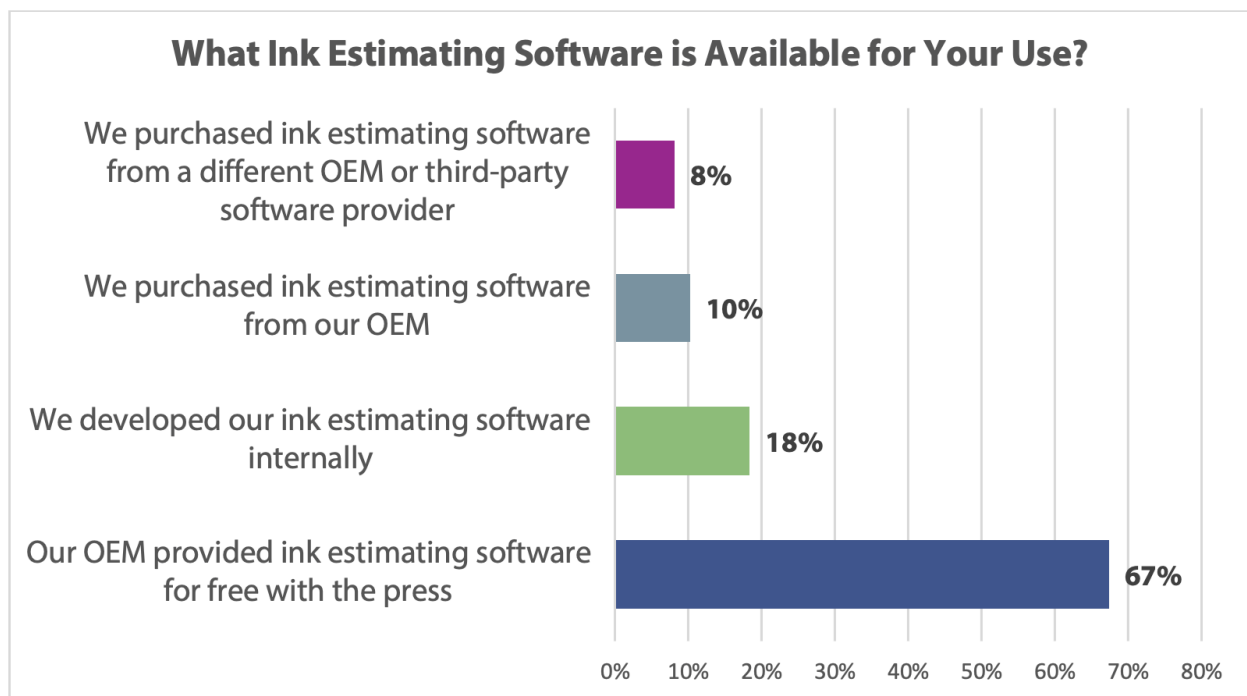
The top 5 application segments represented were Direct Mail, Commercial Marketing Collateral, Transaction Printing, Books, and Catalog & Magazine. Nearly 8% of respondents indicated "Other" for some or all of their segment focus. For those indicating "Other," segments reported include fine art and photographic printing, ceramics and textiles.



Software Solutions Installed

As noted previously, all of the respondents had at least one software solution installed. Many had multiple solutions available.

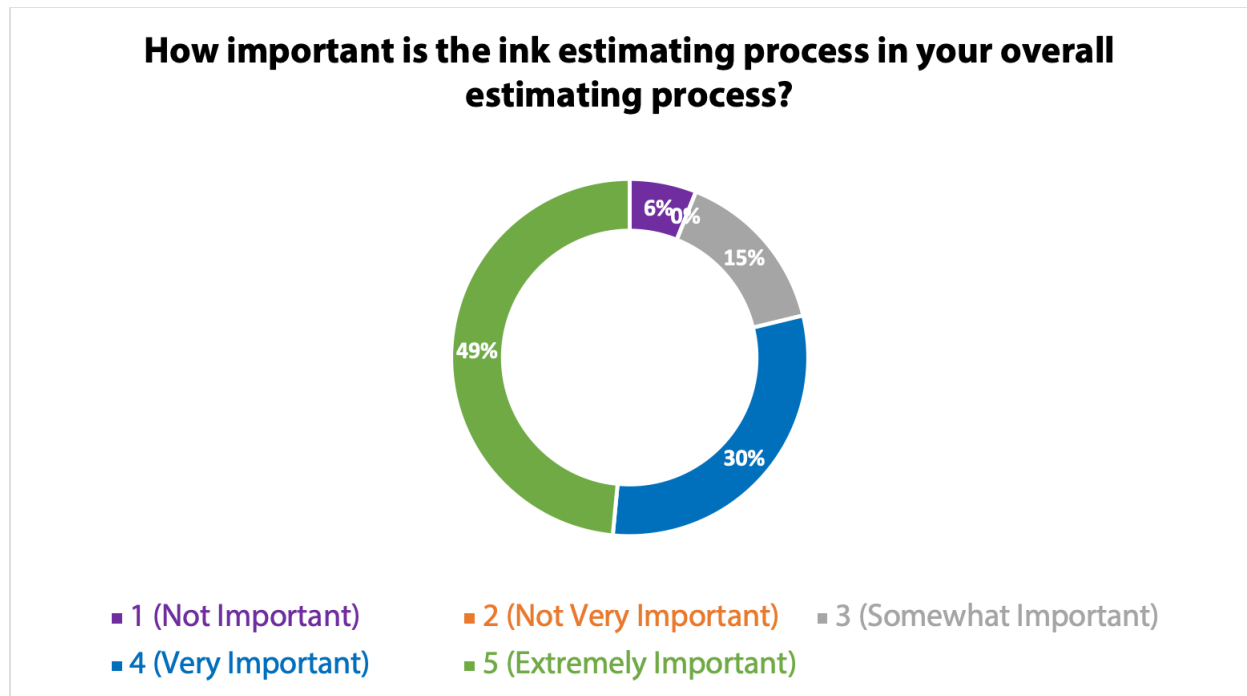
67% indicated that they used software provided for free with the press by the OEM another 10% used software purchased from their OEM. 8% purchased estimating software from a third party and 18% developed a custom solution internally. Most of the participants reporting that they chose to develop their own solution also had a solution available from their OEM. Overall, 18% used solutions they had paid for while the remaining 82% used free solutions. However, one could argue that free software supplied with a press costing over half a million U.S. dollars is not what is usually thought of as “free software” and in many cases, the cost of software may have been bundled into the press cost.



**Only 18% paid [separately]
for the software being used.**

Perceived Importance of Ink Estimating

Asked about the importance of ink estimating in their overall estimating process, 49% ranked it as extremely important while 79% ranked it as either important or extremely important. Only 6% said that ink estimating was not important. The average rating of importance was 4.15 out of 5.



Of the 6% of the respondents indicating that ink estimating was not important, 50% indicated that they were in-plant operations that did not need to show a profit. Other responses characterizing ink estimating as not important noted that they had primarily low coverage applications.

Additional comments received from participants rating ink estimating as Very Important included:

"It enables us to have a more accurate production cost analysis. And allows us to price jobs more accurately based on the type of job and ink coverage."

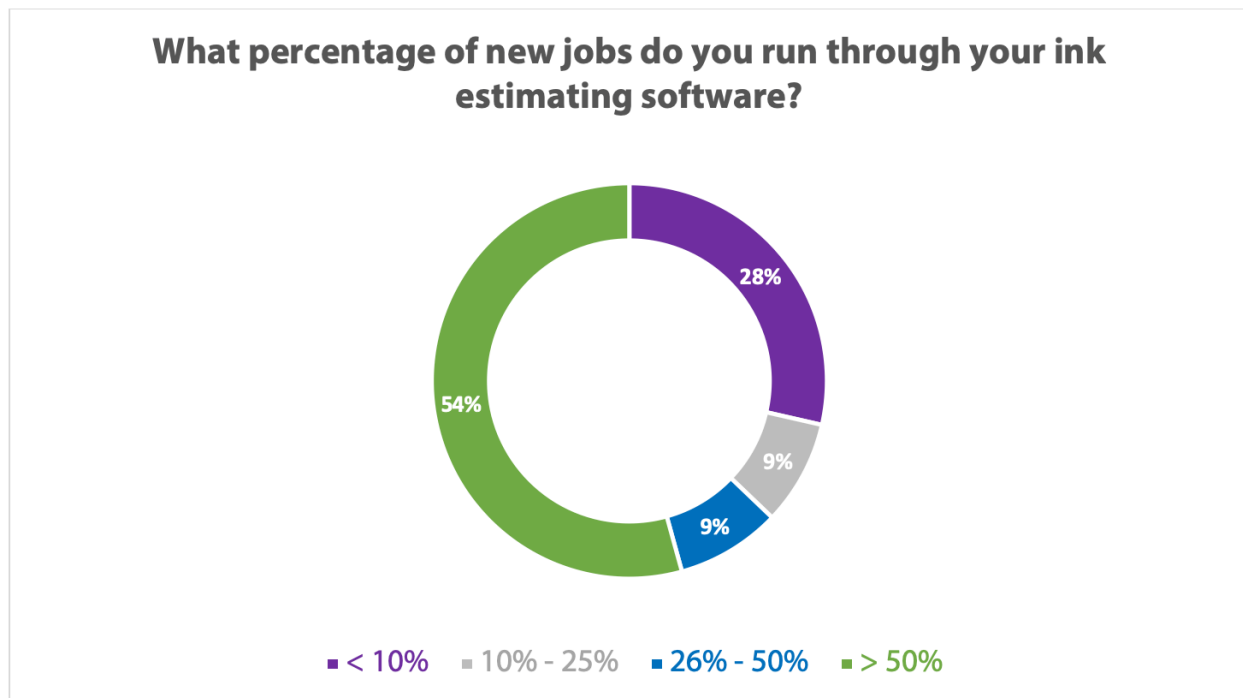
"We never lose money on deceptive jobs."

"The type of PDF (coverage & paper stock) may dictate what press to run [the job on] and at what speed."

"Just knowing where you are at with production cost helps with accuracy and profitability."

Ink Estimator Usage

Across all segments, 54% of respondents indicated that they run more than half of new jobs through their estimating software. 63% indicated that they run more than one quarter of their jobs through ink estimating. However, 28% indicated that they perform ink estimating on fewer than 10% of jobs.



Of all the application segments, Direct Mail providers were the least likely to run new jobs through their ink estimating software.

- 36% of Direct Mail producers use their estimating solution for more than half of new jobs while 45% of indicated that they use their ink estimating tools for fewer than 25% of new jobs.
- 58% of respondents producing Books said that they use estimating for more than half of their jobs, 34% estimate on fewer than 25%.
- 58% of those producing Catalogs & Magazines providers use their ink estimating tools for more than 50% of their new jobs while 42% run fewer than 25% through their estimating solution.
- The application segments most likely to use estimating tools on more than 50% of new jobs were Label, and Packaging providers with 75% of those producing labels indicating that they run more than half of jobs through their estimating solution.

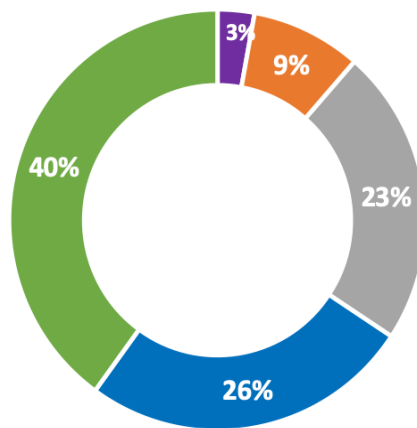
These results must be considered in the context that respondents were not queried about the types of jobs they are most likely to estimate, only about their overall estimating practices. Many respondents produce more than one type of work and estimating habits may vary.

Perceived Ease of Use

The majority of respondents found their ink estimators easy to use. Those that found it the most difficult to were those who decided to develop their own ink estimator internally rather than use the ink estimator provided by their OEM.

Only 11% of respondents with ink estimators in use considered their ink estimator to be difficult or very difficult to use and half of those respondents developed their own ink estimator internally. The average ease of use for internally developed estimators was 4 out of 5. However, answers were polarized on the spectrum measuring either a 1, 2 or 5 which suggests that internally developed ink estimators can be great or a disaster! Of those that had developed their own ink estimator, only 60% currently use their ink estimator. By comparison, average ease of use for OEM provided estimators was 4.18 and 4.40 for third party estimators.

How would you describe the level of difficulty with using your ink estimating software ?



- 1. Very difficult to use
- 2. Somewhat difficult to use
- 3. Neutral
- 4. Simple to Use
- 5. Very simple to use

Average Ease of Use Ratings

In-house
estimator
4.00

OEM
estimator
4.18

3rd party
estimator
4.40

Correlation of Responses

You might expect to find that people who deemed ink estimating to be important and who found their software easy to use would be the most likely to use the software most frequently. That is not necessarily the case. While there was positive correlation between respondents who indicated high ease of use of their inkjet estimating solution and high percentage of jobs estimated ($r_{xy} = .49$), and between respondents who ranked ink estimating as extremely important and those and high percentage of jobs estimated ($r_{xy} = .20$), it is not a terribly strong positive correlation (perfect positive correlation =1).

There were a number of comments from respondents that shed further light on why these factors may not be strongly correlated. Some respondents indicated that they don't receive files from customers in advance needed for estimating. Even if they would prefer to run estimates on the majority of their work, they don't have that option. This would be a fairly common scenario with books, jobs submitted through web-2-print solutions without built in estimating, transaction print jobs and many other fast-turn direct mail applications.

"We don't have representative files when we have to price the job."

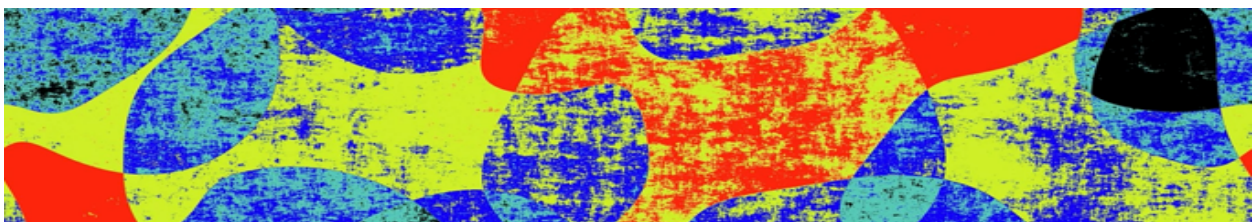
"Sometimes the artwork is rough when we use the software and we get vague results or the customer changes the art when the job is awarded. We have to go to a different department and I am not 100% sure we are really obtaining the best readings."

Many respondents indicated that their ink estimating practices vary based on the type of work they are doing. High and low ink coverage was a common differentiator for the usage of ink estimating tools as well as the press being used. So, a company that used inkjet for more than one application segment might find ink estimating important, but only be able to run estimating on certain types of work and not others. Also, the overall cost of the job was a factor.

"Our transactional documents tend to be low coverage so ink is a small portion of the overall cost."

"In our quoting process we have cost bands set up, many jobs fall below the minimum band so we just round up, these jobs are easy to spot even without the ink cost calculator."

An area that should be of great concern to OEMs and software providers is that many participants indicated that while estimating is important and their software is reasonably easy to use, they are not confident in the accuracy of the estimates.

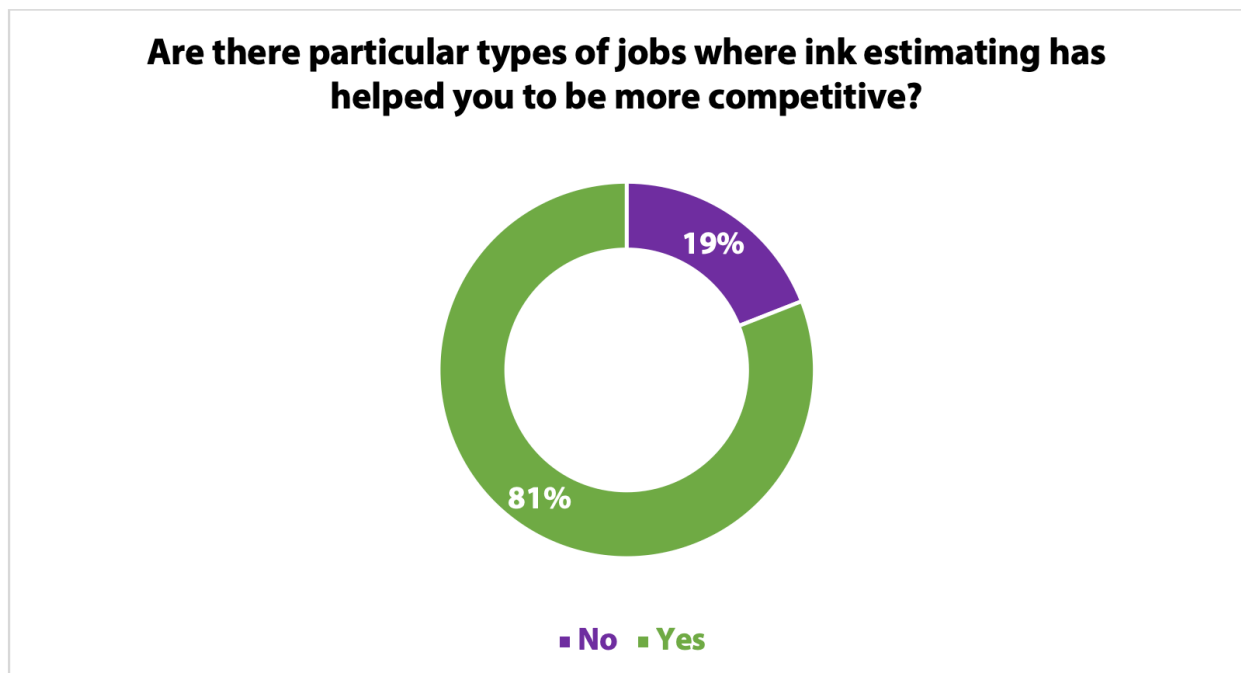


Strategic Value and Perceived Impact on Competitiveness

Asked if there were particular types of jobs where ink estimating has helped them compete more effectively, 81% replied positively. Further comments indicated that the type of work where ink estimating was important to the respondents included:

- Book printing
- Direct mailing
- Fleet truck graphics
- Self-mailers
- Postcards
- Technical manuals
- Jobs over 100% coverage
- Jobs with Pantone colors
- Heavy coverage jobs
- Low margin work

Several indicated that they believed that estimating helped them to be more competitive with “all jobs” produced. One who indicated that estimating did not make them more competitive added, “Maybe not be more competitive, but it is key for the bidding process and cost allocation of a job.”



When queried further about any strategic value gained from ink estimating, several responses were of note:

"Cost control and support in the definition of quality levels by ink coverage."

"We've validated about 15 months of job data with [OEM], we feel confident that we are conservatively estimating the ink consumption and feel this piece of our inkjet estimation tool is good."

"We're able to quickly test different substrates and layouts to see how these types of variables impact ink usage and cost."

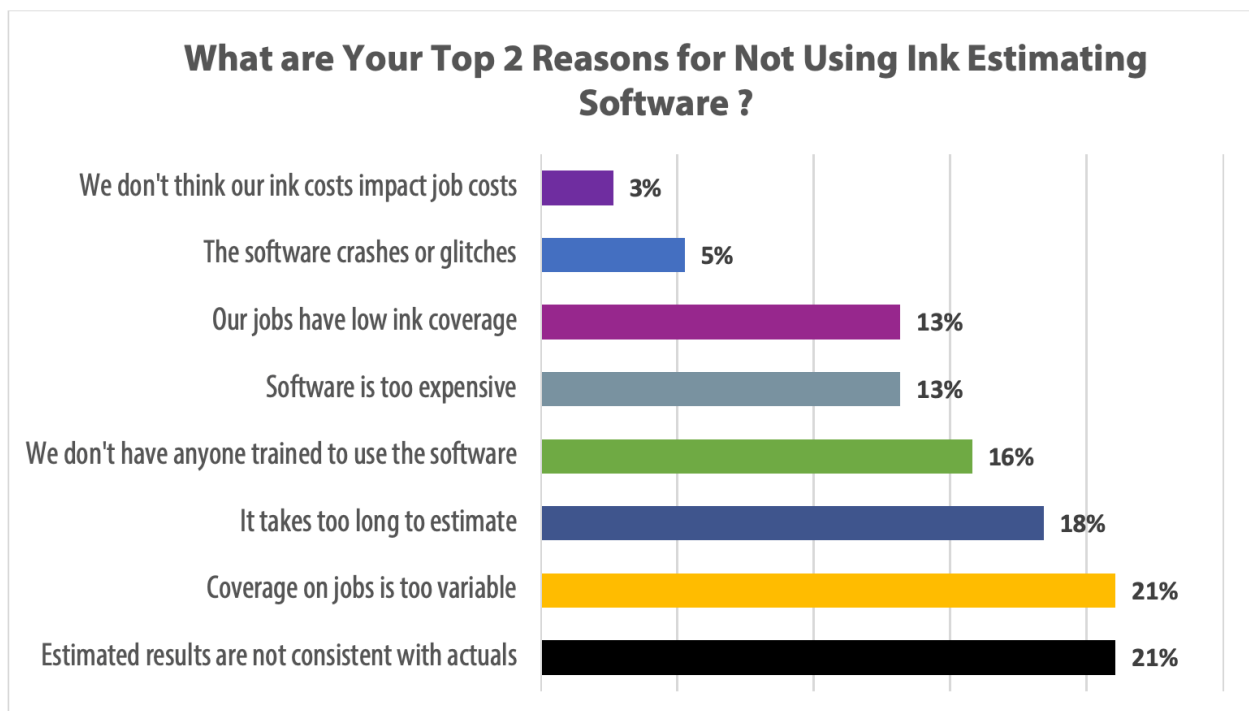
"It enables us to have a more accurate production cost analysis. And allow us to price job more accurately based on the type of job and ink coverage."

"Helps us put the right job on the right printer"

Provides "Evidence to Customer"

Additional Data from (Excluded) Responses with No Ink Estimator in Use

As noted above, participants reported in the study were required to have an ink estimating installed and in use. In conducting the survey, participants who responded that they did not have an ink estimating solution in place were asked for the top two reasons why. The top two reasons cited were that the estimated results were not consistent with actuals and that coverage on jobs was too variable both reported by 21% of (non-qualifying) responses. A close third was that it takes too long to estimate.



Summary

In most production segments other than those where jobs are extremely homogenous or have very low ink coverage, ink estimating is important to competitive pricing. It is clear from the both the quantitative and qualitative responses to that, on the whole, participant's expectations and needs for accurate ink estimating solutions are not being fully met.

While the majority of customers are using the free software provided with their press, this may or may not be the best solution to meet their needs. Only 18% of companies responding are paying for the solution they are using for what is potentially a very strategic aspect of their business.

Recommendations for Inkjet Users

Consider your ink estimating options as carefully as you consider your press. Evaluate ink estimating solutions in parallel and see software provides estimates that are closest to actuals as you run test jobs.

If you already have a solution, check the accuracy of your estimator against the press. The process of running many actuals against estimates provides the baseline for a strong estimating program.

If you don't own estimating software, and don't have the option to acquire, that doesn't mean that you shouldn't do anything. Create baselines using actual ink usage for jobs and generate guidelines for incorporating ink costs into the estimating process. It won't be exact, but it will be as consistent and evidence-based as possible. Continuing the process by measuring actual job costs against estimates will help to refine guidelines over time.

Educate sales and customer service on the impact of ink costs. Make ink estimating an integrated part of the full estimating process. Sales people and customer service staff shouldn't have to go to multiple different groups to get an estimate completed. Consider where estimating needs to happen and match the tool to the talent. You may need different solutions for front-line team members on quick turn estimates versus complex and/or high value program work where estimating errors could have long-term ramifications.

Don't be locked into the solution you have. Periodically consider how your estimating process can be improved and the costs and benefits of making a change. Keep in mind that as presses improve their resolution and media compatibility, software needs to keep up. Has yours?

Recommendations for OEMs

While our research indicates that respondents using OEM provided ink estimating tools on average found the solutions simple to use, nearly 20% of respondents to our survey indicated that they did not use estimating software at all. While some had operational reasons for foregoing estimating software such as very low ink coverage jobs or dynamic jobs with highly variable coverage, other cited issues such as the cost of the software and the time to create an estimate. Also of strong concern was the level of accuracy of the estimates.

Consider the software pricing strategy. Many OEMs have reinforced the price sensitivity of this market by setting the expectation that this type of software should be free. Providing software free with the press in a manner that does not set aside budget for software updates, customer support and overall product management is a recipe for customer disillusionment.

Set customer expectations on the accuracy of the estimating tool and how to benchmark the software against actuals from the press.

If your solution requires users to stop production to run estimates – fix that! Software should be available to run separately from the press.

Consider tailoring solutions for different types of users. The needs and training of estimators in the field can be very different from in-house estimators. Ensure that the product integrates smoothly into the overall job estimating process and profitability analysis. Also, consider cloud-based access as an option for sales people and remote workers.

Take a job lifecycle approach that enables actuals to be entered into the estimating solution rather than tracked separately in spreadsheets. Provide reporting that correlates accuracy by type of job, coverage, substrate, run length, estimator and any other factors that might help to improve future estimating.

Periodically conduct user interface testing on software products to improve customer experience and promote correct usage.

Free ink estimating software is not always the best solution...
for the customer or the OEM.

About Inkjet Insight

Top industry experts combined their resources, creativity and brainpower to offer a deep dive into the world of production inkjet. The result is InkjetInsight.com, the most complete, unbiased and valuable source of information for companies evaluating and using production inkjet.

Find specifications for inkjet presses, important software and workflow products and compatible finishing and media along with downloadable tools for evaluating products and measuring quality.

Research and coverage includes inkjet for documents, packaging, textiles and industrial applications as well as retrofits and bespoke integration.

Our independent research is funded by member support. Please consider [becoming a supporting member](#).

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