

2017 Demand Side Platform Software Usability Report

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DataXu[®]

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Executive Summary

Time is a precious asset. For today's marketers and their agencies, using simple, effective and efficient tools is key when it comes to maximizing advertising success and increasing return on investment for the business. Many of the responsibilities of in-house trading desk employees are often dedicated to pulling the levers in day-to-day programmatic operations. However, **maximum business impact happens when hands-to-keyboard team members are able to spend more time on planning and higher-level strategic initiatives**, and less time on flight management.

Having access to a programmatic technology platform helps increase the efficiency of media buying teams and allows them to spend more time where it matters.

Unfortunately, finding the right technology platform to enable efficient and effective media buying is often a process of trial and error or frequent head-to-head tests. Many demand side platforms (DSPs) have all of the required features, but are difficult to use and can end up adding to a team's workload rather than reducing it. **To be truly effective, a DSP needs to be flexible, intuitive and easy to use.** Its user interface (UI) should allow for teams to streamline workflows and increase the efficiency of the entire organization.

DataXu®, a leading provider of programmatic marketing solutions, released a completely redesigned UI for campaign management in January 2017. This major upgrade involved an overhaul of the foundational platform framework

and a complete rebuild of the company's self-serve campaign management application.

To determine the effectiveness of its newly redesigned UI, DataXu commissioned Validately, an independent user experience (UX) research firm, to conduct a head-to-head platform usability test to compare the new DataXu platform with that of four competitor DSPs. The results of this test were objectively reported by Validately to benchmark the overall user experience of DataXu customers against other industry-leading DSPs.

Overall System Usability Scale (SUS) Scores From Validately Test:

DataXu Campaign Manager ¹	Competitor 1 ²	Competitor 2 ³	Competitor 3 ⁴	Competitor 4 ⁵
SUS Score: 85 (1st Place)	SUS Score: 58 (3 rd Place)	SUS Score: 22 (5 th Place)	SUS Score: 45 (4 th Place)	SUS Score: 75 (2 nd Place)

Key Findings

- **DataXu's Campaign Manager received the highest usability score** when compared to four other widely used DSP user experiences.
 - **Participants strongly prefer platforms with campaign management fluidity and flexibility** to platforms that only offer sequential, step-by-step navigation.
 - **Users prefer platforms where default flight settings can be managed at the campaign level**—meaning selections and edits made once at the top level of the campaign are pushed down and applied to all flight-level items automatically.
 - When settings need to be customized across flights, **users prefer platforms where all settings are accessible on one page and editable in “batch mode”** across many flights at once rather than one by one.
 - **It took 21%-45% longer⁶ to complete campaign management tasks** including campaign creation, flight creation and adjustments **on other DSP platforms than when using the DataXu platform.**
 - Media Traders responsible for larger scale, complex campaigns (50+ flights) can expect to **save approximately 32-43⁷ minutes when creating flights and 9-29⁸ minutes when adjusting flights** by utilizing DataXu's platform.
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Report Methodology

The research for this report was conducted in January 2017 by the independent UX research firm Validately on behalf of DataXu. Eight current DataXu customers were asked to participate in the head-to-head usability test. During the study, participants used DataXu's newly upgraded **Campaign Manager** platform for the first time.

The job functions of the study participants were Media Traders or Media Planners who utilize a DSP technology at least once per day. The participants were currently using an earlier version of the DataXu platform and at least one other DSP in their daily roles.

Participants were asked to complete 25 tasks across five major advertising-related categories during their Validately test session. These tasks were completed in both the new DataXu platform as well as one of the four other DSPs involved in the study. In order to remove bias from the study, the selection of which platform was tested first was randomized for each individual session.

Test sessions lasted approximately one hour and fifteen minutes and were conducted online. Each user's experience was moderated and observed by Validately. Throughout the duration of the test session, candid comments and

observations of the participants were captured and utilized in generating the key findings of this report. At the conclusion of each session, a survey was administered to help evaluate the overall system usability for each of the tested platforms. The responses from these surveys were compiled at the end of the study to create an overall usability score for each of the tested platforms.

In exchange for their time, study participants received \$150 USD.

Task Categories

Tasks were designed to simulate a realistic, yet simple, typical end-to-end campaign setup (as time permitted) similar to what a Media Trader would be responsible for in his or her daily role. 25 tasks were completed across five major task categories: Pixel and Audience Setup, Creative Setup, Campaign Setup, Flight Setup and Adjustments.

Pixel and Audience Setup	Tasks included creating one conversion pixel and one retargeting pixel.
Creative Setup	Participants were tasked with the setup of one banner ad and one video ad.
Campaign Setup	Tasks involved setting up the campaign name, start and end dates, budget, CPM target where applicable and device targeting. If available, participants were asked to set the campaign objective, assign conversion pixels and set up cross-device targeting.
Flight Setup	This category focused on the setup of four flights, or subgroups, of the new campaign which are sometimes called "ad groups" or "line items." Specific setup included optimizations for flights, inventory, geo targeting, video settings, assigning creatives and assigning audiences.
Adjustments	Participants were asked to make adjustments including end date, days of week, budgets, inventory and environments.

Scoring

To evaluate end-to-end campaign management usability across all platforms included in the study, Validately leveraged a **System Usability Scale (SUS)** across all DSP platforms. This method is used to assess system usability across effectiveness, efficiency and satisfaction. The SUS score yields a single number representing a composite measure of the overall usability of the system being studied. **The maximum SUS score is 100. A score of 80+ can be viewed as an A, 70-80 as a B, 60-70 as a C, 50 to 60 as a D and below 50 as an F.** A score totaling less than 68 is considered below average.

At the conclusion of each Validately-run usability session, participants answered a survey of ten questions for each tested platform. Questions were positioned both positively and negatively to account for bias. Participants answered each question on a scale of 0-4, where 0 is Strongly Disagree, and 4 is Strongly Agree. Scores were tabulated by Validately to generate the final SUS scores for each platform. The specific questions participants were asked are:

Questions used to generate SUS score

1. I think that I would like to use this platform frequently
2. I found the platform unnecessarily complex
3. I thought the platform was easy to use
4. I think that I would need the support of a technical person to be able to use this platform
5. I found the various functions in this platform were well integrated
6. I thought there was too much inconsistency in this platform
7. I would imagine that most people would learn to use this platform very quickly
8. I found the platform very cumbersome to use
9. I felt very confident using the platform
10. I needed to learn a lot of things before I could get going with this platform

In addition to the overall SUS score, two other scoring methods were utilized to measure usability on a more granular level. These were:

- 1. Ease of Use:** Upon completing the tasks within a specific task category in each platform, participants ranked ease of use via a 1-5 scale, denoting ease of use from (1) Very Difficult to (5) Very Easy.
- 2. Time to Completion⁹:** Overall time to completion for the tasks involved in a single task category was tracked by the usability test moderator and recorded when measurable.

Detailed Findings

At the end of the study, all surveys from the participants were combined to create an overall SUS score for each of the platforms involved in Validately's head-to-head programmatic platform usability test. These scores show the overall usability and preference of the Media Trader and Media Planner participants in terms of effectiveness, efficiency and satisfaction. **The DataXu platform was ranked highest by a significant margin**, as participants showed a strong preference for the intuitive design and functionality offered by the DataXu platform.

Overall End-To-End Campaign Workflow SUS Scores:

DataXu Campaign Manager ¹	Competitor 1 ²	Competitor 2 ³	Competitor 3 ⁴	Competitor 4 ⁵
SUS Score: 85 (1 st Place)	SUS Score: 58 (3 rd Place)	SUS Score: 22 (5 th Place)	SUS Score: 45 (4 th Place)	SUS Score: 75 (2 nd Place)

The DataXu platform offered the fastest time to completion for two task categories (Flight Setup and Adjustments) when compared to other tested platforms. These two categories often involve the most time-consuming tasks throughout the life of a typical ad campaign. Flight setup and adjustments may occur several times over the duration of a campaign.

Time To Completion Statistics:⁹

DataXu Flight Setup: 00:08:21	DataXu Adjustments: 00:06:00
Closest Competitor: 00:10:57	Closest Competitor: 00:06:43
Savings of: 00:02:36+ per setup of four flights	Savings of: 00:00:43+ per adjustments of four flights

These time savings are compounded as complexity increases. For a more elaborate campaign consisting of 50+ flights, the DataXu platform could save a user approximately 32-43⁷ minutes when creating flights and approximately 9-29⁸ minutes each time flight adjustments are needed when compared to the other DSPs included in the Validately study where time to completion numbers were available⁹. These time savings could be repurposed by agency teams to spend additional time on insights, campaign strategy or more meaningful campaign adjustments. More adjustments can lead to better performance for the campaigns and more client renewals for the agency.

Pixel and Audience Setup is typically the first step in any online advertising campaign. In this task group, participants generated the behind-the-scenes pixel tracking code used with cookies to capture actions or generate retargeting audiences. Users created one conversion pixel and one retargeting pixel and a corresponding audience for campaign use in the Validately test scenario.

Pixel and Audience Setup

Average Participant Ease of Use Score* Ranking Results:

*All scores are on a scale of 1-5, where 1 is Very Difficult and 5 is Very Easy

DataXu	Competitor 1	Competitor 2	Competitor 3	Competitor 4
4.6	5.0	3.3	3.0	5.0

Across this task category, all measured platforms had a similar time to completion for all study participants. Average times ranged between 1 minute and 45 seconds and 2 minutes and 37 seconds. Participants reported that the Pixel and Audience Setup process was very similar for the DataXu platform, Competitor 1 and Competitor 4.

During the **Creative Setup** phase, the Media Trader loads specific ads (called creatives) that will be used for the campaign into the platform. Creatives come in all shapes, sizes and formats and include mobile display ads, video ads, desktop banner ads and more. The Media Trader then assigns the clickthrough URLs that the advertiser wants the ad to drive the consumer to. Participants of the study uploaded one pre-supplied banner creative and one pre-supplied video creative.

Creative Setup

Average Participant Ease of Use Score* Ranking Results:

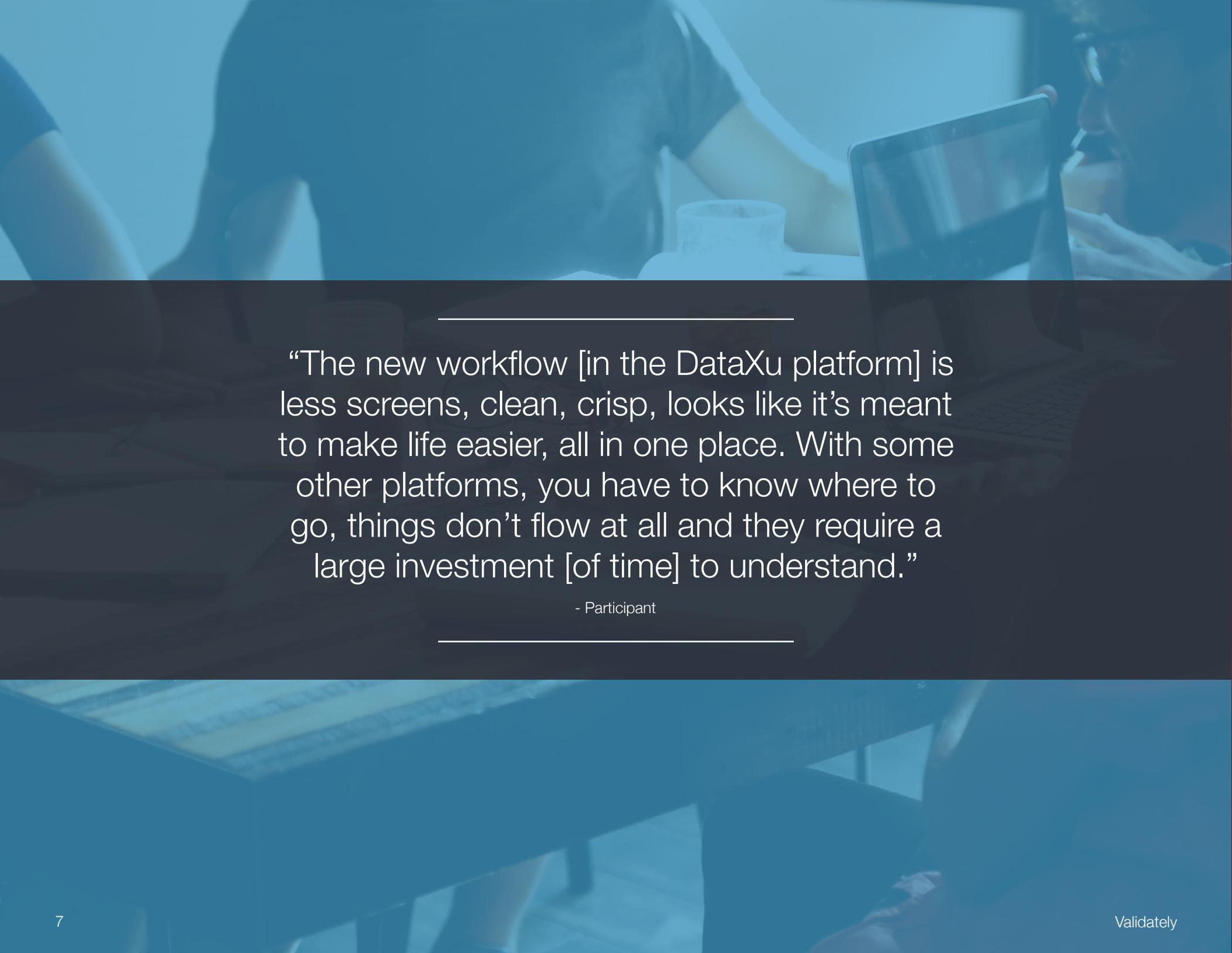
*All scores are on a scale of 1-5, where 1 is Very Difficult and 5 is Very Easy

DataXu	Competitor 1	Competitor 2	Competitor 3	Competitor 4
4.3	4.0	4.3	3.0	5.0

General time to completion for the Creative Setup task category was similar for most of the platforms tested. Participants voiced that they would like to have access to the following features while completing tasks in this category in their daily roles:

- Creative Preview Capabilities
- Bulk Upload Capabilities
- Drag-and-Drop in a fluid workflow

No platform tested in this study provided all three of these features.



“The new workflow [in the DataXu platform] is less screens, clean, crisp, looks like it’s meant to make life easier, all in one place. With some other platforms, you have to know where to go, things don’t flow at all and they require a large investment [of time] to understand.”

- Participant

The third task category, **Campaign Setup**, involves building an advertising campaign within the programmatic platform around a specific timeline, budget and objective.

During the testing of this category, most participants noted that they preferred the **DataXu Campaign Management workflow over the workflows of the other DSPs** due to its onscreen organization.

Campaign Setup

Average Participant Ease of Use Score* Ranking Results:

*All scores are on a scale of 1-5, where 1 is Very Difficult and 5 is Very Easy

DataXu	Competitor 1	Competitor 2	Competitor 3	Competitor 4
4.7	4.8	4.0	5.0	5.0

“In [the] DataXu [UI], everything is in one place and easily accessible.”

- Participant

The DataXu platform had a slightly longer average time to completion for Campaign Setup when compared to three other measured DSPs (Competitors 1, 2 and 3). However, when reviewing average time to completion for the tasks included in overall campaign management (Campaign Setup, Flight Setup and Adjustments), the other platforms measured took 21% to 45% longer than when using the DataXu platform¹⁰.

Time savings increase as campaigns grow in complexity. For the sake of this study, campaign management tasks were limited to a very small set of only four flights. **The amount of time saved with the DataXu platform would be significant for complex campaigns with 50+ flights due to the compounded time savings.** For media trading teams, compounded time savings means that the team will run more efficiently each day and each week. The team can use time savings to either manage more campaigns or spend time saved on other strategic initiatives. For companies who are having trouble finding talent to staff their teams, increased Media Trader efficiency may mean that they can be more effective with a smaller team of Media Traders.

Each campaign is composed of multiple flights, also referred to as “line items.”

The Flight Setup phase involves creating flights with different strategies to meet campaign goals. Each flight can be customized with different targeting, creatives, budgets, bidding strategies and run durations. Users created four flights during the Validately test session: two for banner creatives and two for video creatives. Flights were set up with inventory, creatives, audiences, geo targeting and video settings.

As one of the more complex task categories, time to completion for Flight Setup ranged from 8 minutes and 21 seconds to almost 12 minutes. **The DataXu platform had the fastest average time to completion**, with the next closest DSP averaging 10 minutes and 57 seconds to completion.

In the DataXu platform, users were able to access all settings and targeting features simultaneously without navigating away from the main screen. Participants indicated that this method allowed them to be more effective and stated that this “single-screen” functionality is their preferred workflow state. They also noted it was quick and easy to create flights and customize as needed.

Flight Setup

Average Participant Ease of Use Score* Ranking Results and Average Time to Completion¹¹ for Setup:

*All scores are on a scale of 1-5, where 1 is Very Difficult and 5 is Very Easy

DataXu	Competitor 1	Competitor 2	Competitor 3	Competitor 4
4.5	3.3	2.4	1.5	4.0
00:08:21	00:11:04	00:10:57	00:11:50	N/A

“In [the] DataXu [platform] you can access flights when you need to, rather than [digging through] a sequence.”

- Participant

When reviewing average time to completion for one flight setup, the three other DSPs that had time to completion measured were 31%-42% slower than the DataXu platform. Competitor 4 did not have time to completion measured for the Flight Setup task category.

As campaigns grow in complexity, **Media Traders can expect to save an average of 41-52 seconds per flight setup by utilizing the DataXu platform.** In a campaign where there are 50 flights to set up, Media Traders can save, on average, 32-43 minutes per campaign by utilizing the DataXu platform versus Competitors 1, 2 and 3.

Finally, in the fifth and final task group, study participants were asked to make small changes to improve each individual flight's performance. The **Adjustments** task category included five subcategories: adjusting flight dates, days of week, budget, inventory and device settings.

During this task category, average time to completion ranged from 6 minutes on the DataXu platform to 10 minutes and 41 seconds on Competitor 2's platform. In adjusting the four flights of the usability test, the DataXu platform saved participants between 43 seconds and almost 5 minutes when compared to Competitors 1 and 2.

Adjustments occur frequently and are often complicated. Some of the platforms tested in this study required users to adjust each flight individually. **Participants reported that the DataXu platform was the easiest to use for adjustments**, and was the most efficient for completing all tasks. More than one participant noted the ability to make multiple edits to many flights at the same time as a key differentiating capability included in the DataXu platform.

Adjustments

Average Participant Ease of Use Score* Ranking Results and Average Time to Completion¹² for Setup:

*All scores are on a scale of 1-5, where 1 is Very Difficult and 5 is Very Easy

DataXu	Competitor 1	Competitor 2	Competitor 3	Competitor 4
4.5	3.3	2.4	3.3	3.3
00:06:00	00:06:43	00:10:41	N/A	N/A

“The [DataXu] workflow is seamless.”

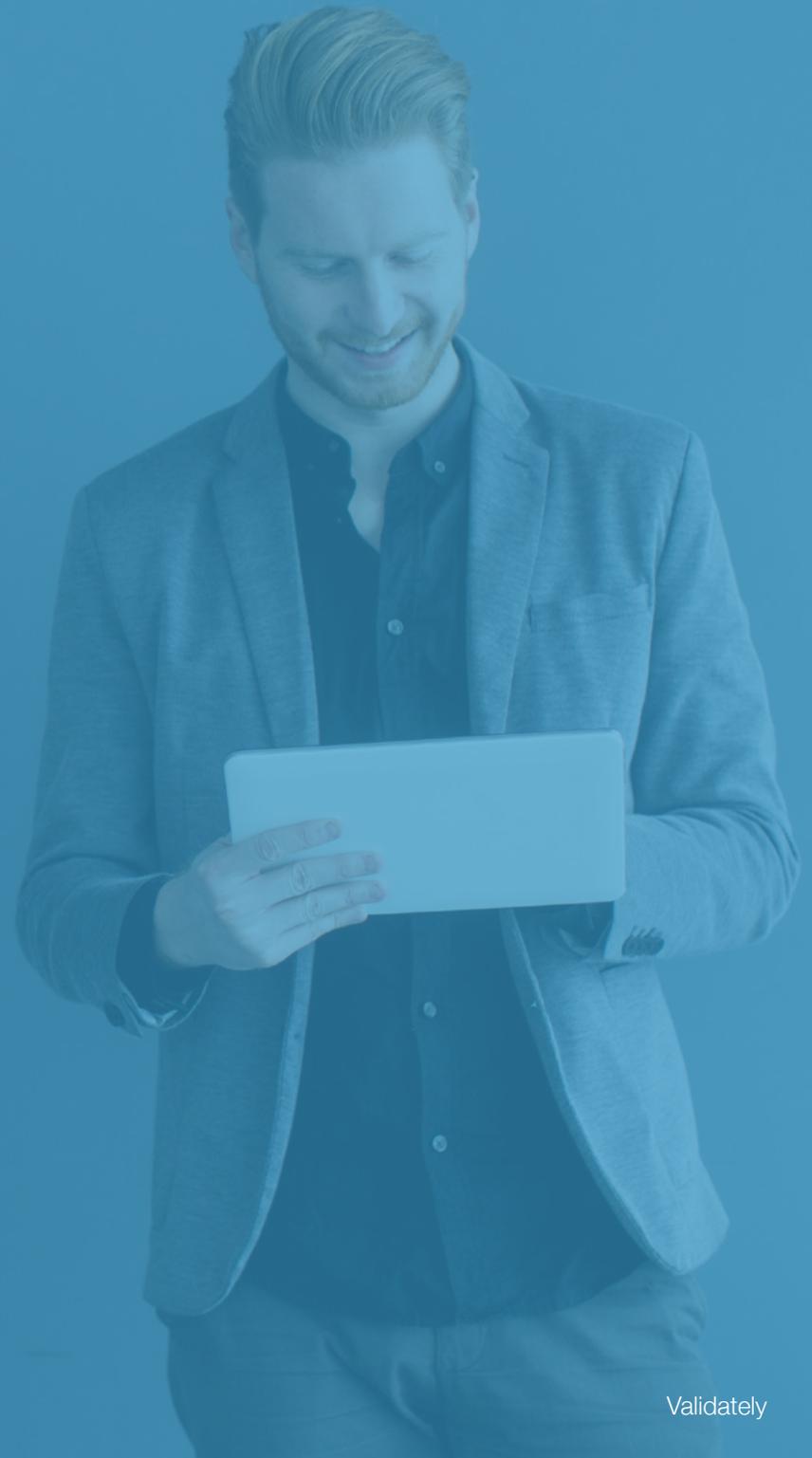
- Participant

When reviewing average time to completion for adjustments to one flight¹³, two other DSPs in the study (where time to completion data was available) were 12%-78% slower than the DataXu platform.

Media Traders who manage larger scale campaigns (50+ flights) can expect to save nearly 9 to 29 minutes by using DataXu's platform each time adjustments across flights are required compared to other measured DSPs. During the life of a typical campaign, adjustments are required several times to help increase accuracy and effectiveness.

“Love the new 2017 changes to the [DataXu] console. I can tell DataXu was truly thinking about the user when redesigning the platform.”

- Participant



Conclusions

Validately conducted an independent, neutral test of five widely utilized demand side platforms (DSPs) in January 2017. The results of that test are detailed in this report. Although each platform demonstrated strengths and weaknesses across the five task groups included in this research study, **DataXu's Campaign Manager emerged as the leader in usability and workflow efficiency according to overall SUS score.**

Overall Platform Test SUS Scores:

DataXu Campaign Manager ¹	Competitor 1 ²	Competitor 2 ³	Competitor 3 ⁴	Competitor 4 ⁵
SUS Score: 85 (1st Place)	SUS Score: 58 (3 rd Place)	SUS Score: 22 (5 th Place)	SUS Score: 45 (4 th Place)	SUS Score: 75 (2 nd Place)

While participants confirmed that DataXu's legacy platform from prior years was not always the easiest to use or the most modern in appearance, multiple study users expressed delight at the improved look and feel of the DataXu Campaign Manager updated by the company in January 2017. It would appear that as DataXu's customer base expands to include a broader percentage of independent agencies, in-house trading desks and other self-serve users, the DataXu management team has made a significant investment in evolving the company's media trading product to focus on usability.

Media Traders confirmed that they experienced significant time savings with DataXu's Campaign Manager, particularly during campaign management-related tasks, including Campaign

Setup, Flight Setup and Adjustments. Notable time savings occurred when creating flights and while making batch adjustments across flights. Regardless of the complexity of a campaign, DataXu's time-saving features made a user's workflow faster. When reviewing average time to completion per individual flight setup and adjustments, two DSPs included in the study (where time to completion data was available) were 24%-51% slower than DataXu.

DataXu Platform Differentiated Features:

- Rapid flight creation "copy" functionality
- Ability to make batch changes/edits across flights
- "Single screen" targeting setting adjustments
- Inheritable flight-level settings from master campaign

While DataXu automates many of a Media Trader's optimization tasks through artificial intelligence and algorithms, manual interventions that are instrumental to overall campaign success remain accessible to Media Traders and can be accomplished quickly. **Automation and easier active management frees up Media Traders to focus on insights, campaign strategy and other meaningful campaign adjustments**—which ultimately lay the groundwork for better performance, increased revenue and advertiser success.

About Report Stakeholders



About Validately:

Validately's mission is to help teams build products that customers love. We believe the best way to build products is through constant user research. Validately makes it easy to talk to users—helping researchers, UX designers and product managers build products that customers love.

For more information about Validately, visit www.validately.com or email sales@validately.com



About DataXu:

DataXu's mission is to make “marketing at the speed of life” a reality. The world's top brands and agencies use DataXu to better understand and engage their audiences across all devices and media formats, including native and Connected and Addressable TV.

DataXu's open and flexible technology platform provides marketers with unparalleled Media Activation, Marketing Analytics and Data Management capabilities. With fourteen offices in ten countries, DataXu's simple and effective solution helps brands connect with and engage with their consumers in real-time... wherever they choose to spend their time.

For more information about DataXu, visit www.dataxu.com

References

- ¹ Eight participants tested DataXu's platform.
- ² Two participants tested Competitor 1's platform.
- ³ Four participants tested Competitor 2's platform.
- ⁴ One participant tested Competitor 3's platform.
- ⁵ One participant tested Competitor 4's platform.
- ⁶ Due to the number of participants in the study, time to completion results are directional. Not all platforms tested had measured time to completion for all task categories. DataXu Campaign Setup and Flight Setup time to completion metrics are compared to Competitors 1, 2 and 3. DataXu Adjustments time to completion metrics are compared to Competitors 1 and 2.
- ⁷ Range of total approximate time saved calculated by taking the average time to completion per single flight setup and multiplying by 50 for Competitors 1, 2 and 3.
- ⁸ Range of total approximate time saved calculated by taking the average time to completion per single flight adjustment and multiplying by 50 for Competitors 1 & 2.
- ⁹ Due to the number of participants in the study, time to completion results are directional. Not all platforms tested had measured time to completion for all task categories.
- ¹⁰ Overall campaign management metrics are created from the combined time to completion metrics for the Campaign Setup, Flight Setup and Adjustments task categories of DataXu and Competitors 1 and 2.
- ¹¹ Due to the number of participants in the study, time to completion results are directional. Flight Setup time to completion metrics available for DataXu and Competitors 1, 2 & 3.
- ¹² Due to the number of participants in the study, time to completion results are directional. Adjustments time to completion metrics available for DataXu and Competitors 1 and 2.
- ¹³ Adjustments to flights included five tasks: adjusting date, days of week, budget, inventory and device settings across flights.