Real-Time Data Analytics
Empowering Publishers To Make
Better, Faster Decisions

FORRESTER®

Table Of Contents

ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. Ranging in scope from a short strategy session to custom projects, Forrester's Consulting services connect you directly with research analysts who apply expert insight to your specific business challenges. For more information, visit forrester.com/consulting.

Executive Summary

The pool of digital advertising dollars is growing. As brand marketers shift their focus from traditional to digital environments, the opportunity for smart, informed publishers to tap into that abundance and grow their revenue increases, too. Forrester predicts that overall digital display advertising dollars will grow from an estimated $20 billion in 2015 to $38 billion by 2019.[1]

Publishers that successfully grab their share of these growing budgets will have done so because they were armed with critical insights derived from the aggregation, analysis, and deployment of data from a wealth of sources, coupled with a differentiated speed-to-market.

In May 2015, PubMatic commissioned Forrester Consulting to explore and evaluate real-time analytics in media and publishing companies. Forrester tested this hypothesis: Publishers with access to real-time data analytics tools are able to improve performance, optimize effectively, and, therefore, earn greater revenue for their ad inventory. Real-time reporting will also help identify pockets of opportunity that would otherwise be invisible to publishers, allowing them to maximize performance and revenue.

> **Among the publishers surveyed, 65% reported that people in their organization currently receive SSP/exchange analytics data on a regular basis to make critical operational decisions about pricing, optimization, and inventory prioritization.**

Forrester conducted a survey of 110 media analytics professionals responsible for revenue management and decisions for analytics reporting tools. Sixty of the surveys were from US media and publishing companies, while 50 were from the UK. For the purposes of this paper, small publishers are defined as those with fewer than 500 employees, representing 43% of the respondent base, and large publishers are those with 500 or more employees, representing 57% of the total respondents.

KEY FINDINGS

Forrester's study yielded four key findings:

› **Real-time data drives publisher growth.** Building a sustainable business is the overarching publisher goal. Access to real-time data analytics helps publishers make timely, better-informed decisions that increase revenue generation and uncover new revenue opportunities. Sixty-seven percent of publishers believe that real-time data is important to their efforts.

› **The vast majority of publishers, however, do not receive their data in real time.** While real-time bidding (RTB) is executed instantaneously, only 27% of publishers surveyed reported receiving their data in real time, while another 15% reported receiving it every few minutes. That begs the question: What is the definition of real-time data in digital advertising? Is it instantaneous, as it is in financial markets? Free access to real-time data was introduced in financial markets in 2008 and transformed the buying and selling of equities. It has the potential to do the same for publishers when real time means instantaneous data about their real-time activities is delivered to them by their exchanges and sell-side platforms (SSPs).

› **As publishers grow, so, too, does their appetite for data and their need for analytics and insights that are actionable.** Publishers operate in a highly charged and competitive environment. As they grow, so, too, do their data resources in number and in volume. Publishers are challenged by their need to organize, analyze, and prioritize that data in a way that maximizes their speed-to-market. Sixty percent of large publishers reported that they are challenged by the tools at their disposal to manage the volume of data they receive, while 48% are frustrated by the speed at which they receive data.

› **Aggregating multiple data streams into one holistic view remains a challenge.** Disparate data streams, often based on disparate metrics delivered by disparate platforms, result in measureable levels of frustration for publishers looking for seamless access to mission-critical information. Fifty-six percent of publishers are challenged by their inability to get a single view of multiple data sources. Fifty-nine percent expressed frustration with disparate platforms and 54% percent with disparate metrics. Easy-to-use tools that aggregate, analyze, and dispense real-time data to publishers would contribute enormously to smooth and efficient business operations.
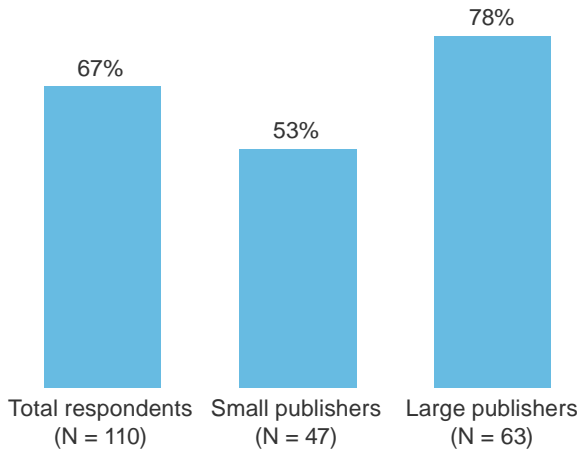
FORRESTER®

Making The Case For Real-Time Data Analytics

The majority of analytics professionals at publishers large and small believe that access to real-time data in their analytics reporting tools is vitally important. And they know exactly what they'd like to receive to be best equipped to make the kind of rapid-fire decisions that would have a measurable impact on their company's revenue, profitability, and overall business health. Our study found that:

› **Real-time data is important in reporting and analytics tools.** Seventy-eight percent of large publishers surveyed believe that it's important to have real-time data reporting and analytics tools, compared with 53% for smaller publishers, and 67% for the entire sample. (see Figure 1).

› **Broad data sets have particular value to publishers.** Publishers large and small would most like to receive impression data, revenue data, and audience performance data because those sets of data would best equip them to optimize inventory for their advertisers and for their profitability. Also, large publishers (40%) are far more interested in receiving cost per thousand (CPM) data in real time compared with small publishers (17%).

› **Real-time data helps large publishers increase revenue.** As large publishers strive to grow their profit and scale their businesses, 63% reported that they believe that real-time data analytics will enable an increase in revenue. Other benefits include better yield (57%), informed optimization decisions (56%), more efficient inventory management (48%), and the discovery of new revenue opportunities (52%). Smaller publishers also recognize these benefits, but not as much as large publishers do (see Figure 2).

› **Publishers want to do more with the data they receive.** More than half of publishers would like to do more analysis on the data they are already receiving. More than a third of smaller publishers and media companies and 55% of larger publishers and media companies feel they could better leverage the data they are already collecting.

FIGURE 1
Real-Time Data Is Critical To Large Publishers

"How important is it for your company to have real-time data in your analytics reporting tools?"

67% Total respondents (N = 110)
53% Small publishers (N = 47)
78% Large publishers (N = 63)

Base: 110 analytics professionals from media companies

Source: A commissioned study conducted by Forrester Consulting on behalf of PubMatic, May 2015

FIGURE 2
Increased Revenue Tops Benefits Of Real-Time Data

"What benefits is your company currently realizing by receiving data in real-time?"

■ Total respondents (N = 110)
■ Small publishers (N = 47)
■ Large publishers (N = 63)

Increased revenue — 62% / 60% / 63%
Better yield or performance — 54% / 49% / 57%
Ability to make optimization decisions — 51% / 45% / 56%
Ability to uncover new revenue opportunities — 48% / 43% / 52%
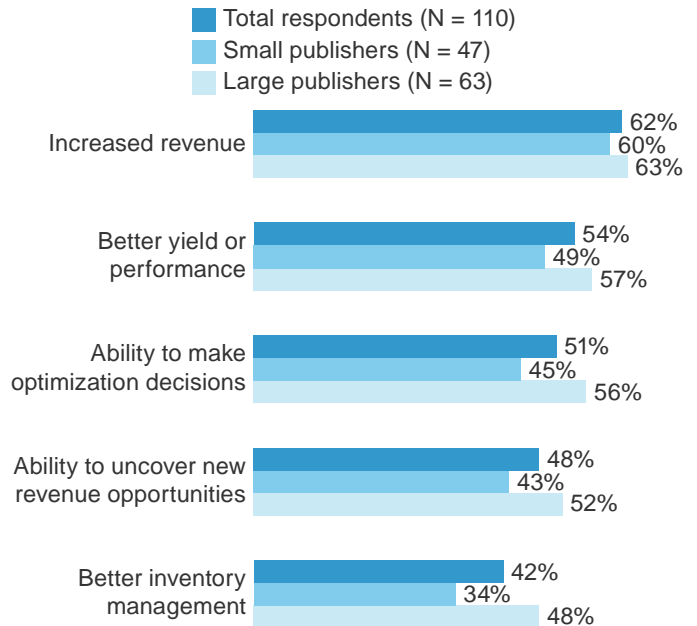Better inventory management — 42% / 34% / 48%

Base: 110 analytics professionals from media companies

Source: A commissioned study conducted by Forrester Consulting on behalf of PubMatic, May 2015

FORRESTER®

As Publishers Grow, So Do Their Data Resources And Requirements

Publishers have the opportunity to receive an abundance of data from their SSPs and exchanges, including social data, mobile data, multichannel attribution data, and more. Our research confirms that the larger the publisher organization relative to smaller publishers, the greater the data resources. When publishers add to their SSPs and/or exchange partnerships, they also add to their data sources. The frequency of updates and the methods by which they receive this data vary greatly by publisher size and the number of exchanges/SSPs with which they are engaged. And the sheer volume of data can be daunting: 60% of large publishers find large amounts of data challenging; 44% of small publishers agree.

Company size also determines the number of publisher employees expected to interact with the data: The larger the publisher, the greater the number of employees using the data. Sixty-two percent of large publishers reported that over 20 people in their organization used data received from SSP and exchange partners on a regular basis to make critical operational decisions about pricing, optimization, and inventory prioritization, compared with only 26% of small publishers.

While the publishers surveyed are generally satisfied with the data they're collecting from SSPs and exchanges, there remains great room for improvement. Our study found that:

› **A gap exists between demand for and supply of real time data.** As previously mentioned, 67% of all publishers believe that real-time data is important to their efforts. Among the surveyed publishers, however, only 27% currently receive real-time data. But do they? There is no industry-wide accepted definition of real-time data. In the financial markets, real-time data (which is measured in milliseconds) was made widely and freely available in 2008, and it transformed how equities are bought and sold. The digital advertising industry isn't there yet, but those publishers that value real-time data are anticipating the transformative nature of speed combined with data to power their businesses into the future (see Figure 3).
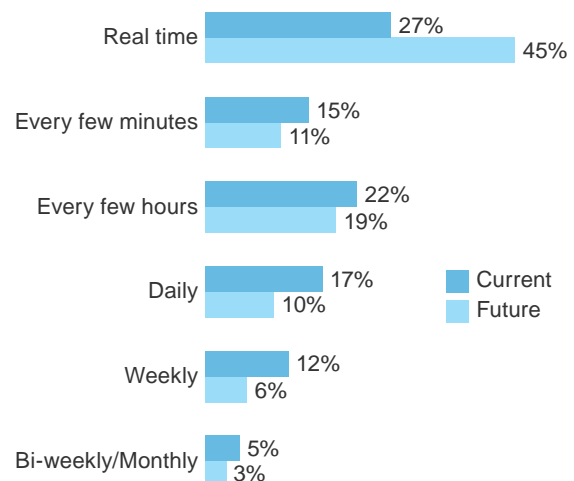
› **Publishers' data sources and data types are growing.** One key strategy that publishers can adopt to build their businesses is to position themselves as marketing partners with their best advertisers, who strive to plan, execute, and measure cross-platform campaigns. And one key tool in that strategy is the delivery of a holistic view of campaign

performance. But the growing adoption of new media platforms — such as social and mobile, which are driving a plethora of data streams into publisher systems — can stymie that partner positioning. Currently, 73% of publishers are receiving social metrics and 65% receive mobile metrics from their exchanges and SSPs. Additionally, more than half are receiving digital multichannel attribution metrics, 50% receive tag management data, and more than a third receive A/B multivariate testing data. As marketers strive toward unified cross-platform planning and execution of campaigns, publishers that can supply a holistic view of campaign data will be viewed as valuable marketing partners.

› **Large publishers seek out efficiency and depend on analytics dashboards and API feeds to aggregate data.** Smaller publishers find desktop tools, such as Microsoft Excel, to be adequate for their data analysis needs; however, large publishers need more sophisticated and timely solutions. More than half (52%) of these companies import data into a data warehouse at a significant expense, and 45% use a data visualization tool that typically requires

FIGURE 3
Publishers Seek More Frequent Data Updates

"How frequently do your exchanges and SSPs update the data and how frequently would you like them to update data in the future?"

	Current	Future
Real time	27%	45%
Every few minutes	15%	11%
Every few hours	22%	19%
Daily	17%	10%
Weekly	12%	6%
Bi-weekly/Monthly	5%	3%

Base: 110 analytics professionals from media companies
("don't know" responses not included)
Source: A commissioned study conducted by Forrester Consulting on behalf of PubMatic, May 2015

FORRESTER®

investment of time and effort to customize. Nearly half of large publishers (45%) surveyed use external partners, such as technology partners or digital analytics agencies, to integrate multiple data sources.

› **Today, overly complex data management tools present a challenge for publishers.** Sixty percent of the publishers surveyed for this report said that the tools they have to manage the sheer volume of data they receive are either overly complex or inadequate to the task. Fifty-six percent find their tools lacking when it comes to getting a single view of multiple data sources, and 54% are frustrated by the tools they have to integrate disparate data metrics. Additionally, many publishers lack analytics professionals on their teams to perform timely analysis and extract actionable insights.

› **Publishers rely on data streams from SSPs and exchanges to make mission-critical decisions, such as those involving deal prioritization and pricing and optimization of inventory.** Publishers of all sizes reported that they use their current data resources to inform the decisions they make across a host of revenue-generating operations. Larger publishers, with more nuanced revenue operations, reported using the data they currently receive to determine the allocation of inventory to the full array of sales activities, including direct, programmatic guaranteed, private marketplaces, and open auctions. The most sophisticated of publishers believe in testing, learning, and adjusting their prioritization to respond to changing market conditions. It is received wisdom that direct sales always tops the waterfall, but many publishers that Forrester has interviewed say they now explore placing programmatic at the top; others experiment with positioning private marketplaces at the top (see Figure 4).

Management Challenged By Growth And Variety Of Data Resources

Consumer behavior is changing; increasingly, consumers favor mobile devices over desktop. As a consequence, smart publishers and marketers alike tailor new content and ad formats to take advantage of the strengths of each device, adding to the volume, complexity, and analysis of data. While publishers of all sizes demand data accuracy, large publishers are more likely than small publishers to recognize that an abundance of data also presents challenges, specifically with regard to managing that data to

FIGURE 4

Analytics-Based Business Decisions

"Which of the following business decisions is your organization making based on your current analytics data or reporting?"

■ Small publishers (N = 47)
■ Large publishers (N = 63)

	Small	Large
Prioritization of deals	53%	51%
Pricing of inventory across these channels	51%	48%
Optimization of inventory	49%	48%
Allocation of inventory to private marketplace	32%	49%
Allocation of inventory to direct	30%	51%
Allocation of inventory to programmatic guaranteed	15%	51%
Allocation of inventory to open auction	13%	33%

Base: 110 analytics professionals from media companies

Source: A commissioned study conducted by Forrester Consulting on behalf of PubMatic, May 2015

maximize its application across disciplines. Our study found that:
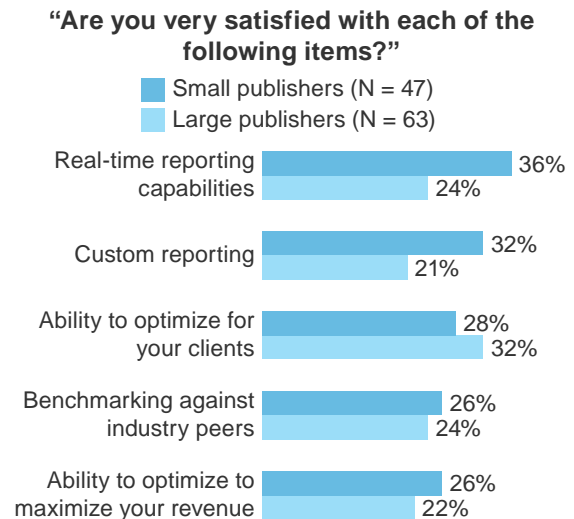
› **Overall satisfaction with current data sources varies by publisher size.** Large publishers are more satisfied than small publishers with their real-time capabilities (see Figure 5). But even across large publishers, there's clear room for improvement.

› **Frustrated publishers grapple with the sheer amount of data available to them.** As mentioned previously, large publishers are particularly challenged by the sheer amount of data that needs to be analyzed, as 60% of them indicated (see Figure 6).

› **Obstacles stand in the way of effectively assembling data into a single holistic view and managing multiple partners and their disparate data platforms.** Large publishers, saddled with inherent complexity, find it significantly more challenging than smaller publishers to manage multiple partners and their disparate data platforms. Nearly two-thirds (59%) of large publishers reported that the disparate platforms or systems across exchanges and SSPs are a challenge. Additionally, 56%

FORRESTER®

of large publishers and more than a third of small publishers find it challenging to get a single view across multiple data sources (see Figure 6).

> **Large publishers and media companies are not satisfied with the current speed of data delivery.** Large publishers, engaged in a vigorous business environment, want their resources to be as immediate and accurate as possible. Nearly half (48%) of large publishers and 34% of small publishers reported that the speed of data delivery is a challenge. Publishers are also frustrated with the delivery speed of custom reports, with 49% of large and 35% of small publishers challenged by the time it takes to receive a custom report (see Figure 6).

> **Given the inadequate or overly complex data analytics tools at their disposal, publishers find their lack of skilled analytics professionals is especially challenging.** Analytics professionals function at a variety of levels, from chief technology officer to senior-level data strategists and junior-level operational professionals. They are skilled at digging deep into data to uncover insights and are in high demand in other industries, including finance, where compensation can be quite high. A quarter of small publishers believe they are inadequately staffed
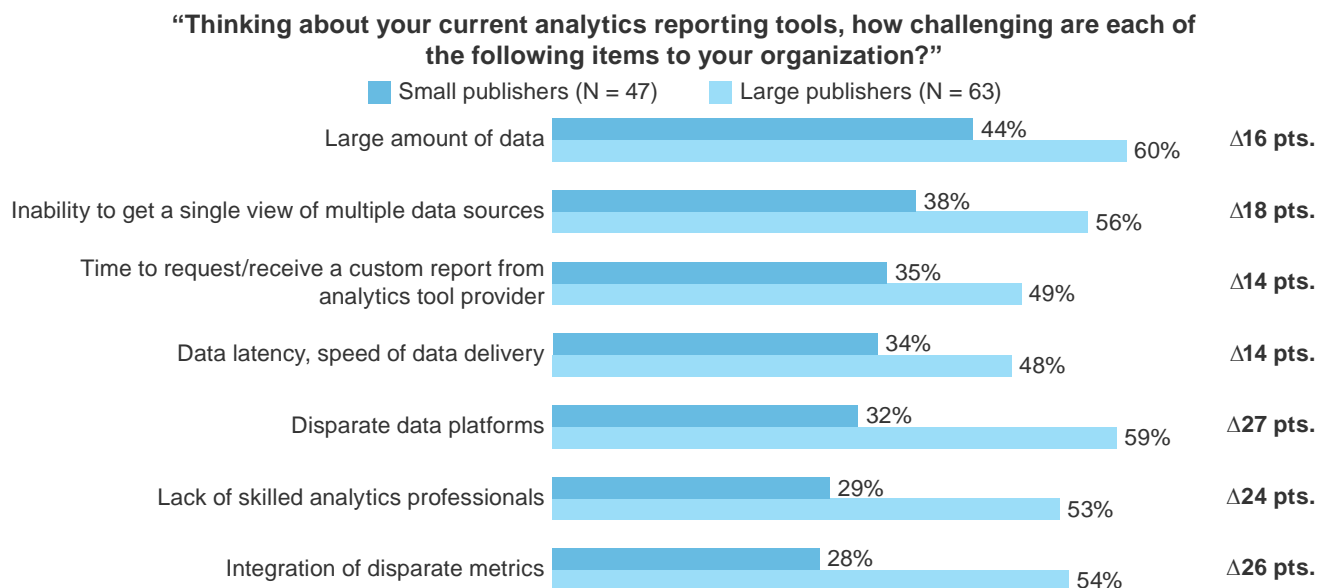
FIGURE 5

Room For Improvement On Customer Satisfaction

"Are you very satisfied with each of the following items?"

■ Small publishers (N = 47)
■ Large publishers (N = 63)

Real-time reporting capabilities — 36% / 24%

Custom reporting — 32% / 21%

Ability to optimize for your clients — 28% / 32%

Benchmarking against industry peers — 26% / 24%

Ability to optimize to maximize your revenue — 26% / 22%

Base: 110 analytics professionals from media companies
(percentages represent "very satisfied" ratings)
Source: A commissioned study conducted by Forrester Consulting on behalf of PubMatic, May 2015

FIGURE 6

Publishers Challenged By Volume Of Data And Disparate Platforms

"Thinking about your current analytics reporting tools, how challenging are each of the following items to your organization?"

■ Small publishers (N = 47) ■ Large publishers (N = 63)

Item	Small	Large	Δ
Large amount of data	44%	60%	Δ16 pts.
Inability to get a single view of multiple data sources	38%	56%	Δ18 pts.
Time to request/receive a custom report from analytics tool provider	35%	49%	Δ14 pts.
Data latency, speed of data delivery	34%	48%	Δ14 pts.
Disparate data platforms	32%	59%	Δ27 pts.
Lack of skilled analytics professionals	29%	53%	Δ24 pts.
Integration of disparate metrics	28%	54%	Δ26 pts.

Base: 110 analytics professionals from media companies
(percentages represent "very challenging" ratings)
Source: A commissioned study conducted by Forrester Consulting on behalf of PubMatic, May 2015

FORRESTER®

and are unsure where to find people with the right
skillsets, while nearly half of large publishers are facing
this challenge.

Key Recommendations

Real-time data analytics has become a crucial component of the digital media industry, informing decisions made by teams across publishers and media companies that are critical to market success. As publishers and media companies grow, the data streams they access increase in number. So, too, does the number of internal stakeholders dependent on that data analysis for the smooth functioning of their operations. Multiplicity of resources and colleagues results in complexity, which, for publishers, leads to a general frustration with their ability to view their data resources holistically, hire adequately, and take best advantage of what they have at their fingertips to deliver value and position themselves as true marketer partners. They know, for example, that speed-to-market is a key differentiator and that real-time data analytics can deliver insights that improve optimization decisions, drive revenue growth, and improve yield, all vital to overall business growth. Forrester's in-depth surveys with analytics managers uncovered five steps publishers and media companies can take to ensure that they are getting the most out of their real-time data analytics:
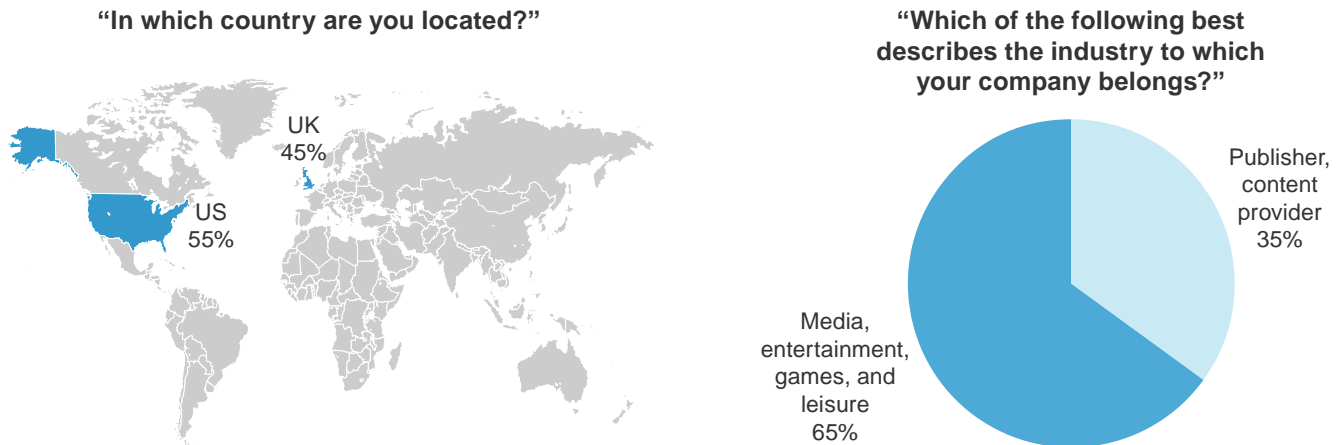
› **Choose vendors with the widest array of capabilities to answer your need for a complete set of real-time data that includes competitive insights.** The more you know about your competition — which advertisers are choosing them over you, for example — the better armed you will be to optimize revenue from your current inventory and attract new advertisers with new programs.

› **Insist vendors update your data in real time. And work only with those that do.** This will require that you and the industry at large have a single and consistent definition of real time, as is the case with the financial markets. Only then can you realistically demand and receive real-time data. If there is one characteristic of success in digital publishing, it is speed-to-market. Publishers without real-time data analytics are hampered in their ability to compete if their key asset is stale. If your vendor partners cannot rise to this challenge, consider switching them out for those that will.

› **Probe vendor partners about their cross-platform and multi-format capabilities and how they can help you assemble your data to derive a holistic view of your business.** You are likely to find, among your current platform partners, one that is capable of assembling all the data you receive about advertising activity across all devices and formats from all your disparate sources into a single holistic view of your business. Once that is in place, you will see opportunities for better inventory management, including better packaging and pricing, that enables you to present compelling opportunities to your best advertisers.

› **Require that the analytics tools that your vendor supplies are easy to use.** While it might be nice to hire seasoned analytics professionals, that is not a realistic option for most publishers. Such professionals are too rare and too expensive for most publishers to attract and keep. But you can insist that the tools your platform offers are comprehensive and easy to use. With such tools in hand, and active service from your vendor on those occasions when you need it, you can train your own team and have all the resources you need on hand.

› **Drive vendors toward innovation.** A great deal of innovation is the result of client demand. Don't be shy. If you find you need something that your vendor doesn't supply, ask for it. And ask again, and again, and again until you get it. You and the entire industry will be better off for it.

FORRESTER®

Appendix A: Methodology

In this study, Forrester conducted an online survey of 110 publishers and media organizations to evaluate use of real-time data in analytics tools. Sixty of the surveys were from US media and publishing companies, while 50 were from the UK. For the purposes of this paper, small publishers are defined as those with fewer than 500 employees, representing 43% of the respondent base, and large publishers are those with 500 or more employees, representing 57% of the total respondents. Survey participants included decision-makers in advertising or marketing operations, sales revenue operations, or analytics. Questions provided to the participants asked about their current data sources, frequency of receiving data, challenges, and realized benefits of having real-time data for analysis. The study was completed in May 2015.
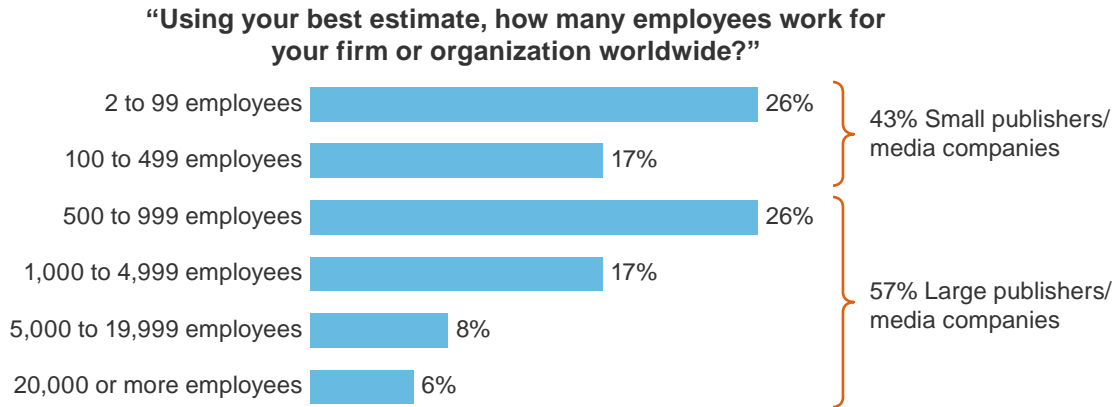
Appendix B: Demographics

FIGURE 7
Country And Industry

"In which country are you located?"

UK
45%

US
55%

"Which of the following best describes the industry to which your company belongs?"

Publisher, content provider
35%

Media, entertainment, games, and leisure
65%

Base: 110 analytics professionals from media companies

Source: A commissioned study conducted by Forrester Consulting on behalf of PubMatic, May 2015

FORRESTER®

FIGURE 8
Company Size

**"Using your best estimate, how many employees work for
your firm or organization worldwide?"**

2 to 99 employees	26%
100 to 499 employees	17%
500 to 999 employees	26%
1,000 to 4,999 employees	17%
5,000 to 19,999 employees	8%
20,000 or more employees	6%

43% Small publishers/
media companies

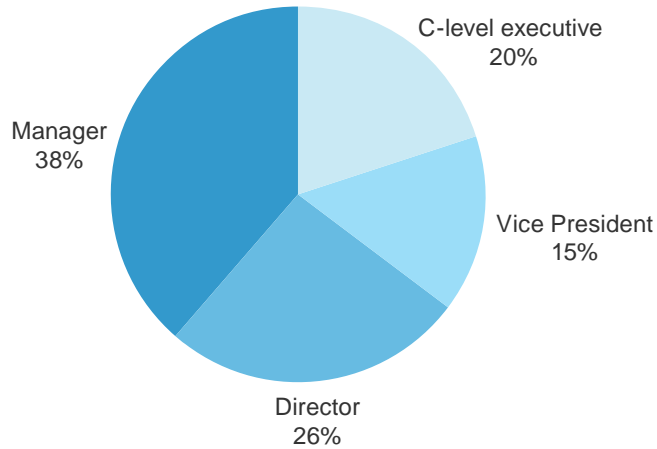57% Large publishers/
media companies

Base: 110 analytics professionals from media companies

Source: A commissioned study conducted by Forrester Consulting on behalf of PubMatic, May 2015

FIGURE 9
Job Title

"Which title best describes your position at your organization?"

C-level executive
20%

Vice President
15%

Director
26%

Manager
38%

Base: 110 analytics professionals from media companies

(percentages may not total 100 because of rounding)

Source: A commissioned study conducted by Forrester Consulting on behalf of PubMatic, May 2015

Appendix C: Endnotes

[1] Source: Forrester Research Online Display Advertising Forecast, 2014 To 2019 (US), Q3 2014 Update, Forrester Research, Inc.

FORRESTER®