

A Forrester Consulting  
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# Why Marketers Can't Ignore Data Quality

Data Quality Leaders Report Greater Potential Customer Lifetime Value, Brand Value, And Operational Efficiency

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Decision makers identify access to high-quality data as the No.1 factor driving their marketing performance success.



In the last year, an estimated 21% of respondents' media budgets were wasted due to poor data quality — a \$1.2 million and \$16.5 million average annual loss for a midsize and enterprise firm, respectively.

## Executive Summary

In the age of empowered customers, competitive advantage hinges on an organization's ability to harness data to improve customer understanding and engagement. But data is only as good as the insights it produces, the actions it influences, and the results it fosters.<sup>1</sup> Poor data quality hinders marketers' insight potential and drains valuable resources. Marketers cannot afford to make marketing/media data quality considerations an afterthought.

In April 2019, Marketing Evolution commissioned Forrester Consulting to evaluate the state of organizations' marketing/media data quality and the tactics that help marketers promote quality efficiently and effectively. Forrester conducted an online survey with 409 respondents with authority over marketing/media performance and measurement decisions at midsize and enterprise organizations in the US to explore this topic. We found that while organizations are placing a high priority on data quality improvements, many still struggle to optimize the quality of their data and, in turn, the quality of the insights they generate.

### KEY FINDINGS

- › **A host of challenges complicate data quality efforts.** Respondents have suffered a number of negative consequences due to poor data quality, including wasted media spending, inaccurate targeting, and even lost customers. While they appreciate the importance of high-quality data, several barriers — especially the need to manage a wide variety of data sources, soaring data volumes, integration issues, and regulatory/privacy concerns — slow their progress.
- › **Focusing on seven quality dimensions can move the data quality needle.** Attaining “perfect” data is neither realistic nor necessary. Marketers should instead prioritize seven key quality dimensions: timeliness, completeness, consistency, relevance, transparency, accuracy, and representativeness. Only between a third and one-fifth of respondents have full confidence that their marketing/media data meets any one of these dimensions, and just 9% are at least mostly confident that it meets all seven. Yet those who have above-average confidence in their data along these considerations (“data quality leaders”) enjoy a number of advantages relative to their peers, including greater return on key performance indicators (KPIs) like potential customer lifetime value, brand value, and operational efficiency.
- › **Data quality leaders are supported by quality-focused processes and technologies.** Companies can ease and accelerate their quality management efforts by emulating the practices in place at leader organizations. Leaders are more likely to have implemented a variety of quality initiatives respondents deem important, including setting quality standards, ensuring methodologies to control for data outliers, and creating standard templates for routinely reported data. They also are more likely to have access to a marketing performance measurement solution with embedded quality checks spanning data arrival, ingestion, and consumption.

# Marketers Depend On High-Quality Data But Struggle To Acquire It

The marketer’s job has never been harder — they must effectively understand and influence empowered customers at the right moment while also demonstrating accountability for their spend. Data-backed marketing analyses — which can, among other things, identify media inefficiencies, examine audience behaviors, and investigate how customers interact with the brand — are instrumental in meeting these goals.<sup>2</sup>

However, marketing models are only as effective as the data on which they are built, and the need to quickly acquire complete and accurate insights has spurred the desire for trusted data. In fact, 82% of marketing leaders in our research come from organizations that are making marketing/media data quality improvements a “top” or “high” priority. They also cite high-quality data as the No.1 factor driving their organization’s marketing performance success, just ahead of other important variables like the expertise of their internal staff and that of their partners (see Figure 1).



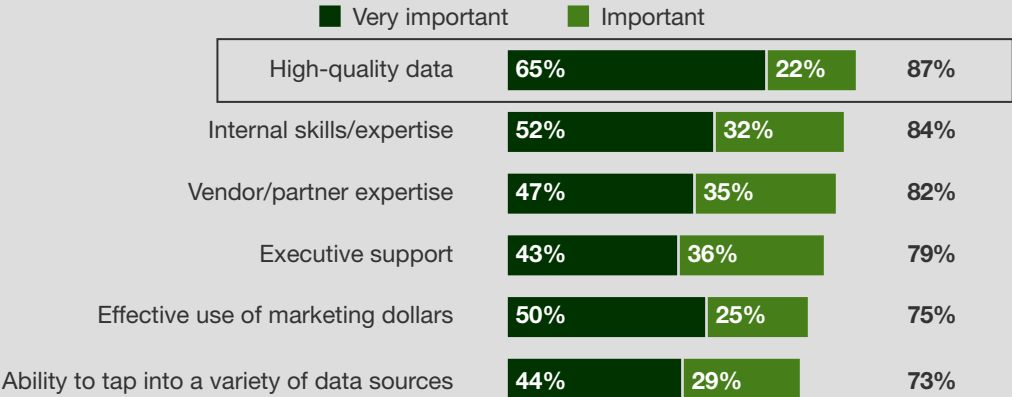
82% are making marketing/media data quality improvements a “top” or “high” priority.

## FIRMS STRUGGLE TO CONTAIN THE DAMAGE FROM POOR-QUALITY DATA

A marketing performance model draws on a range of traditional and digital marketing data as well as market forces data, like weather, econometric data, and competitive information, that enterprises tap into from both internal and external sources. However, Forrester’s research has found that inconsistent levels of quality among sources is a top challenge preventing marketers from using measurement and analytics.<sup>3</sup> Data quality inconsistency issues were echoed in our research. While respondents rate the quality of their own data favorably, they are less likely to do so for the external sources they rely on: 61% describe the quality of their first-party data as “excellent,” but just 26% and 17% say the same for their second- and third-party data, respectively.

Figure 1

“How important are the following to your marketing performance success?”



Base: 409 decision makers/influencers with responsibility over marketing/media performance and measurement  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Marketing Evolution, May 2019

Managing a wide variety of data sources, each with different levels of quality, is only one of many quality management obstacles organizations face. They also cite soaring data volumes, integration issues, and regulatory and privacy concerns among their top challenges.

Despite the barriers, decision makers cannot afford to stand idle. Respondents have suffered from a variety of negative consequences stemming from poor-quality data that collectively put a drain on marketing resources and limit marketing effectiveness (see Figure 2). Not surprisingly, wasted media spend is the most frequently cited repercussion. They estimate that 21 cents of every media dollar spent by their organization in the last year was wasted due to poor data quality, which translates to a \$1.2 million and \$16.5 million average annual loss for the midsize and enterprise organizations in our study, respectively. In addition, as much as 32% of their marketing teams' time is spent managing data quality, and 26% of their campaigns in the last year were hurt by poor data quality, on average.

**Figure 2**

**“Which of the following has your organization experienced as a result of poor marketing/media data quality?”**

(Select all that apply; showing top options)



**Poor data quality consequences by the numbers:**

**\$ 21 ¢**

**Estimated number of cents wasted on every media dollar in last 12 months due to poor data quality**  
(Showing mean)

**🕒 32%**

**Amount of marketing teams' time spent on managing data quality**  
(Showing mean)

**📢 26%**

**Percent of marketing campaigns hurt by poor data quality in the last 12 months**  
(Showing mean)

Base: 396 decision makers/influencers with responsibility over marketing/media performance and measurement  
Source: A commissioned study conducted by Forrester Consulting on behalf of Marketing Evolution, May 2019

# Those Aligned To Seven Data Quality Dimensions See The Best Results

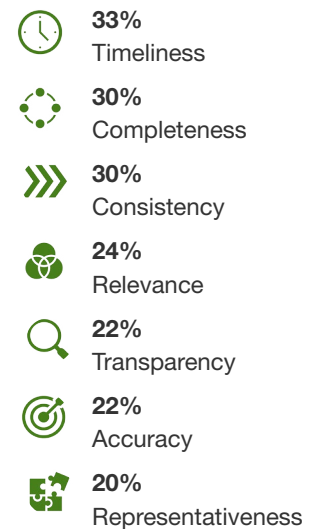
Marketers know they need high-quality data, but what does “high quality” mean? Certainly, attaining perfect marketing/media data is not realistic, especially considering the variation that exists across available data sources, privacy requirements, and the technicalities of channels and devices.<sup>4</sup> To maximize their data’s insight potential, today’s marketers should instead strive for marketing/media data that rates as high as possible across seven important quality dimensions:

- › **Timeliness.** Timely data comes from sources that are up to date. Access to faster data enables relevant insights that meet business objectives.
- › **Completeness.** Complete data records are ones where all expected attributes are provided. A complete customer and marketing data set ensures that all behaviors, intentions, permissions, and sentiments are captured for robust analysis, such as understanding channel halo effects or how customers feel about your brand.
- › **Consistency.** Consistent data references a common taxonomy across platforms, channels, and campaigns. Having consistent data for things like campaign codes and customer identifiers can help marketers speed up the data collection process and analyze trends over time — without worrying about data being labeled correctly.
- › **Relevance.** Relevant data directly relates to the analysis being performed. Adding a slew of data into the system won’t help solve the business problem if it’s not relevant. Relevant data helps answer marketing business problems, address customer behavior questions, and make day-to-day decisions.
- › **Transparency.** Transparent data refers to data whose sources are easy to trace and identify. Marketers who understand the data nuances from first-party and media sources, such as ad servers, will be able to determine if specific streams of data are necessary for their marketing performance analysis.
- › **Accuracy.** The adage “garbage in, garbage out” has never been more relevant in today’s data-rich world. Accurate data reflects the true actions of customers or marketers.
- › **Representativeness.** Representativeness is an important part of targeting and insights; it ensures data collected and used for insights is accurately reflective of the marketplace or an advertiser’s targeted audience.

However, only a third or less have complete confidence that the marketing/media data they use for measurement and insight meets any one of these dimensions (see Figure 3). And while some do have high confidence that their data meets certain dimensions, just 9% are “mostly” or “completely” confident that their data meets all seven.

Figure 3

Percent of respondents who have “complete confidence” that the marketing/media data they use for marketing measurement and insights meets each quality dimension



Base: 409 decision makers/influencers with responsibility over marketing/media performance and measurement  
Source: A commissioned study conducted by Forrester Consulting on behalf of Marketing Evolution, May 2019




Tackling data quality improvements and boosting marketers' trust in their data is a worthwhile effort. Firms with above-average confidence across these seven quality dimensions ("leaders") differ from their peers ("laggards," or those with below-average scores) in key ways.

Improved customer experiences, improved customer targeting, faster decision making, and reduced media spending waste were the most frequently reported benefits for both leaders and laggards (see Figure 4). However, leaders were even more likely than laggards to cite improved understanding of campaign performance (38% versus 24%) and improved trust from both employees and customers as benefits already realized or expected. Improved employee trust comes in the form of greater reliability of the data used in decisions (38% versus 31%), and improved customer trust comes from the improved handling of customers' personal data (32% versus 23%).

Additionally, leaders are more likely to report increases to several KPIs used to measure the success of their marketing/media efforts (see Figure 5). Especially wide differences were observed for potential customer lifetime value, brand value, and operational efficiency. Equipped with higher quality data, these leaders are also more successful at satisfying and engaging with their customers, elevating brand awareness, and driving sales conversions.

**Figure 4**

**Top benefits, realized or expected, from marketing/ media data quality improvements**

-  Improved customer experiences
-  Improved customer targeting
-  Faster decision making
-  Reduced media spending waste

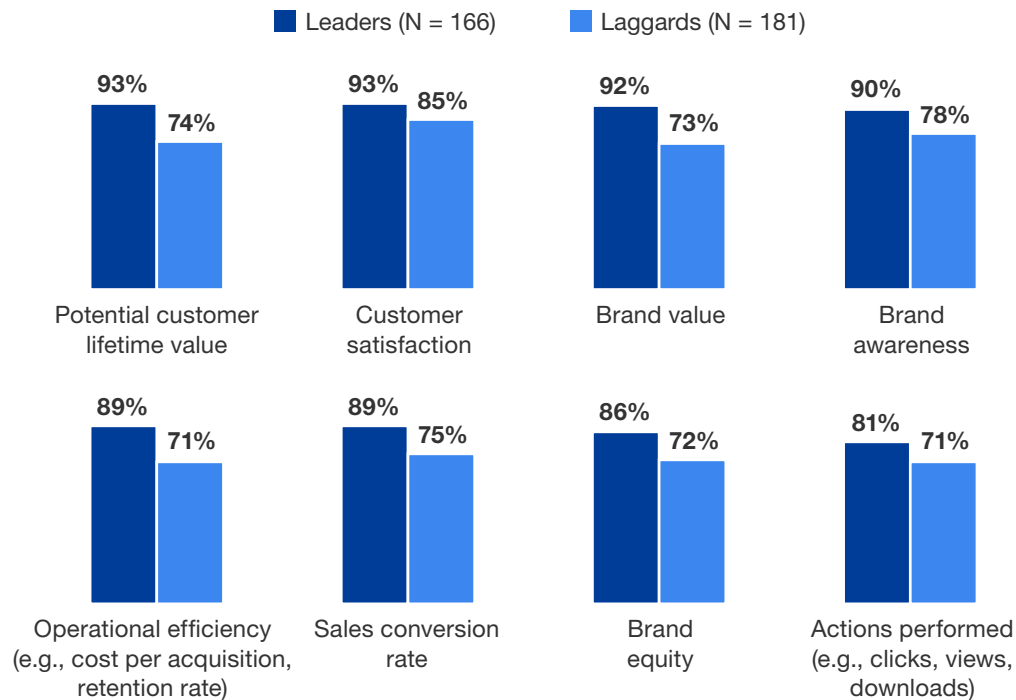
Base: 409 decision makers/influencers with responsibility over marketing/media performance and measurement  
Source: A commissioned study conducted by Forrester Consulting on behalf of Marketing Evolution, May 2019



**Leader organizations have above-average confidence that their marketing/media data meets seven important data quality dimensions; laggards have below-average confidence.**

Figure 5

“How has your organization performed against these metrics when comparing your most recent fiscal year to the previous fiscal year?” (Showing percent who reported an increase among those who are using each metric)



Base: Variable; decision makers/influencers with responsibility over marketing/media performance and measurement  
Source: A commissioned study conducted by Forrester Consulting on behalf of Marketing Evolution, May 2019

## Leaders Illuminate The Path To Data Quality Success

Data quality leaders squeeze more value from their data. But how? For one, they are more likely to have made “significant” or “moderate” progress on data quality management best practices (see Figure 6).

Notable gaps between the two were observed for the initiatives all respondents rated as most important to driving data quality. For example, 84% see “defining data quality standards” as important (the most critical practice overall) and is an intuitive first step of any successful quality improvement effort. Yet just 61% of laggards have made meaningful progress toward this goal, relative to 82% of leaders. Ensuring a methodology to control for outliers is another top consideration and where leaders set themselves apart the most (93% versus 62%). While outliers are not necessarily bad data, marketers need a quick and effective way to identify them so they can decide whether they reveal an emerging trend or a suspicious record that should be removed. Creating standard templates for routinely reported data rounds out the top three most important practices. Standard templates aid marketers (and the tools they rely on) to quickly scan for completeness and deviations from expected norms so marketers can make corrections and avoid erroneous conclusions from the data. Here, too, leaders outpace laggard organizations (60% versus 41%).



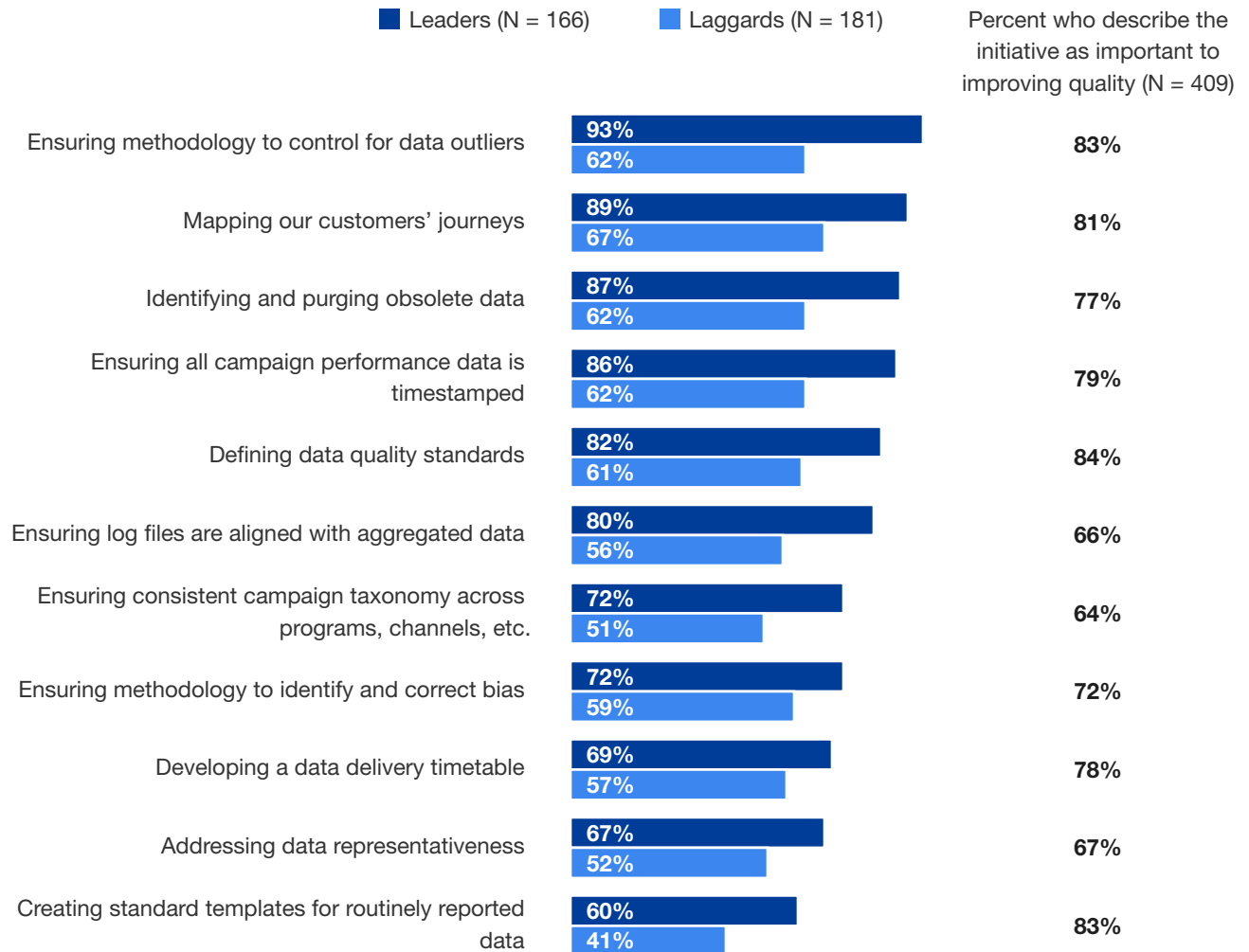
Leaders outpace laggards in their progress toward important data quality initiatives, with margins ranging +11 to +31 percentage points.



**Figure 6**

**“Please describe your organization’s progress toward each of these marketing/media data quality initiatives.”**

(Showing “significant” or “moderate” progress toward the initiatives respondents rated as most important to driving quality improvements)



Base: Variable; decision makers/influencers with responsibility over marketing/media performance and measurement

Source: A commissioned study conducted by Forrester Consulting on behalf of Marketing Evolution, May 2019

## LEADERS ARE BETTER SUPPORTED BY THEIR TECHNOLOGY TO DRIVE DATA QUALITY MANAGEMENT EFFORTS FORWARD

Given the large data volumes they must manage and the speed at which they need to take data-backed actions, marketers need technology to scale their data quality efforts. The velocity of data can outstrip many organizations' internal capacities and expertise, so working with external partners specializing in data quality assurance (QA) checks for the data aggregated and used to build advanced analytical models makes a lot of sense.<sup>5</sup> In our research, 40% use an external solution/partner to support their quality initiatives. The challenge is that 63% of them are managing at least two; 29% use three or more. In addition, the QA checks these partners/solutions perform at the point of data arrival, data ingestion, and data consumption leave many marketers underwhelmed – fewer than half describe them as completely effective (see Figure 7).

We also asked respondents to rate their marketing performance measurement (MPM) solution on its ability to perform a variety of QA checks aligned to each of these overarching phases.<sup>6</sup> We found that respondents are generally satisfied with their MPM solution for some QA tasks, including validating that key data is within a normative range, constantly updating marketing models/insights, and validating that files are in the expected format. However, they fell short in other tasks, especially validating that data is enough for analysis, revealing insights across the entirety of a customer's journey, and ingesting data in a timely manner. While the general pattern of which tasks were strongest and weakest held true for leaders and laggards, leaders were far more likely to have access to an MPM solution they say is effective in performing any one of these QA functions (see Figure 8).

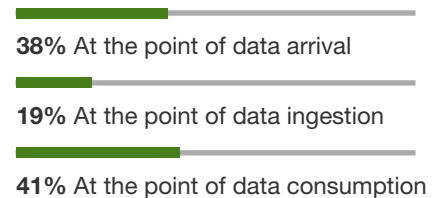
## MARKETERS FAVOR ANALYTICS VENDORS WITH DATA QUALITY TOOLS AND CAPABILITIES

Marketing analytics vendors with a mix of analytics expertise and data quality offerings can help marketers and advertisers wrangle their unruly data. Decision makers in our study were most likely to look for vendors that make data quality and assurance checks part of their standard analytics offering (46%).

They also express interest in solutions that take quality into account across the data's life cycle — not just at the point of data arrival — and in consolidating the number of partners/solutions they must work with to manage data quality. Seventy-seven percent would be interested in a marketing measurement and optimization solution with embedded QA checks spanning all three phases (data arrival, ingestion, and consumption) if it reduced the need to use another marketing/media data quality tool (see Figure 9).

Figure 7

**“How effective are the QA capabilities of the external providers you use to manage marketing/media data quality in each of these phases?”**  
(Showing “completely effective”)



Base: 162 decision makers/influencers with responsibility over marketing/media performance and measurement at organizations that use an external solution/provider to manage quality  
Source: A commissioned study conducted by Forrester Consulting on behalf of Marketing Evolution, May 2019

**Figure 8**

**“Please rate your marketing performance measurement solution on its ability to perform the following tasks.”**

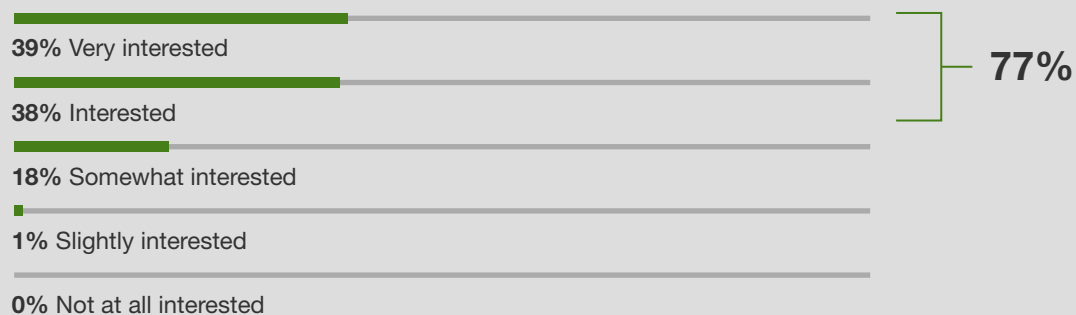
(Showing “good” or “excellent”)

	<b>Leaders</b> (N = 166)	<b>Laggards</b> (N = 181)	<b>Difference</b>
<b>Data arrival</b>			
Validate that data is delivered on time	75%	59%	+16
<b>Data ingestion</b>			
Validate key data is within a normative range	88%	76%	+12
Validate that data files ingested are in the expected format	82%	65%	+17
Validate that the actual data aligns with the planned data	73%	61%	+12
Validate log data aligns with aggregate data	73%	64%	+9
Assign consistent campaign IDs to manage data more efficiently	72%	59%	+13
Normalize data across different sources	66%	56%	+10
Validate available data is enough for analysis	63%	47%	+16
Ingest marketing data in a timely manner	57%	43%	+14
<b>Data consumption</b>			
Identify and correct sample bias	80%	64%	+16
Identify and correct anomalies/outliers	77%	60%	+17
Constantly update marketing models and insights	75%	67%	+8
Validate that the data is representative of the complete marketplace	66%	50%	+16
Reveal insights about the entire customer journey, not just the "buy" phase	61%	47%	+14

Base: Variable; decision makers/influencers with responsibility over marketing/media performance and measurement  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Marketing Evolution, May 2019

**Figure 9**

**“How interested would you be in a marketing measurement and optimization solution with embedded data quality checks (from data arrival, through ingestion, all the way to consumption) if such a solution reduced the need to use another marketing/media data quality tool?”**



Base: 409 decision makers/influencers with responsibility over marketing/media performance and measurement  
 Note: Not all responses are shown.  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Marketing Evolution, May 2019

# Key Recommendations

The key to achieving business success hinge on high-quality, reliable data. Marketers should continually monitor data assets against key data quality dimensions like completeness and representativeness to ensure business results are accurate. Delivering trusted data is paramount to the success of all analytical models.

Forrester's in-depth survey of 409 marketing and customer data/ insights professionals about data quality management yielded several important recommendations:



**Build data governance policies that are intertwined with the marketing process.** Successful data governance policies stay tightly aligned to business objectives. In this context, organizations that are successful at data governance include processes related to planning, budgeting, and business alignment.



**Focus on data quality first.** Data quality will help marketers determine if they need to update customer information, manage duplicates, validate email addresses, purge fraudulent and bot traffic, and maintain data hygiene via procedures such as the US Postal Service National Change of Address (NCOA) processing. Focusing on data quality first will have a direct impact on your customer and marketing analysis.

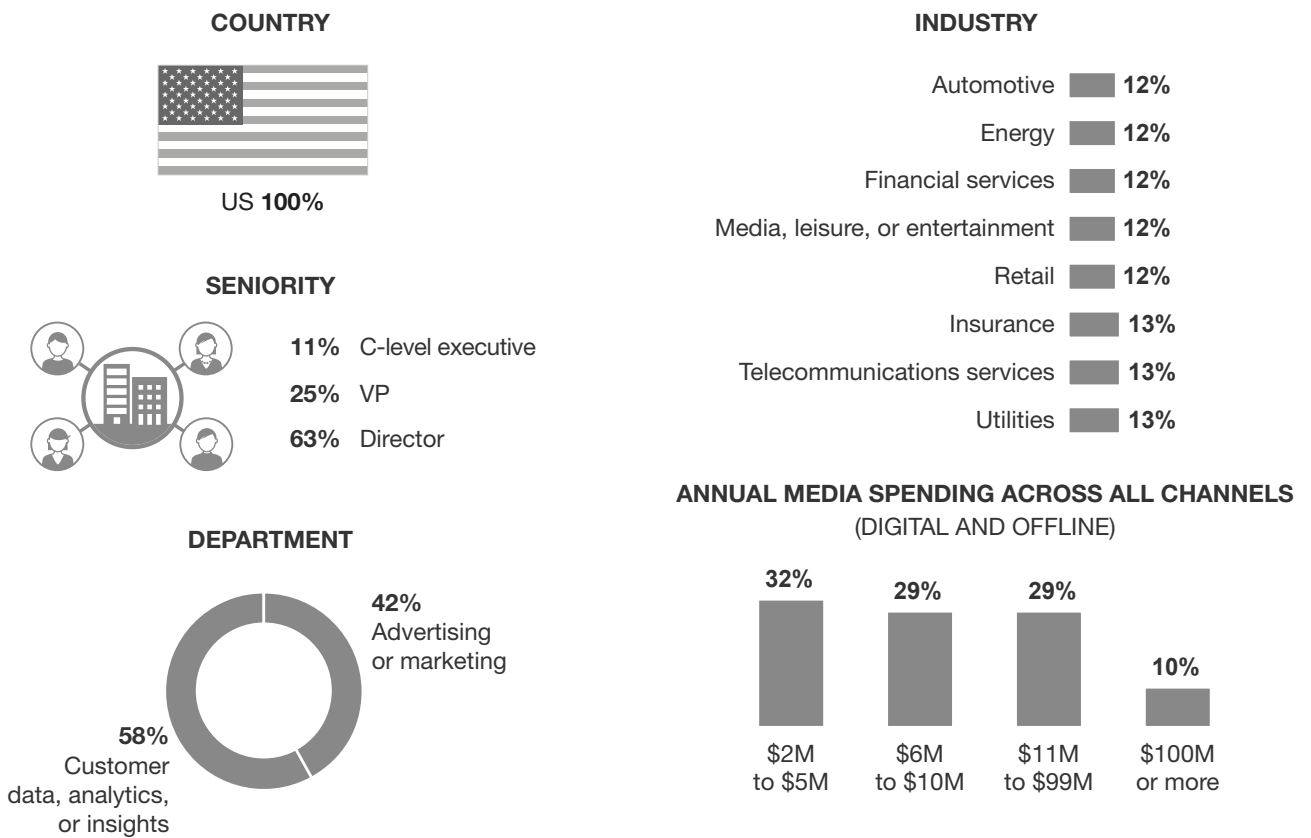


**Raise your data capture game.** Use frontline engagement as an opportunity to request updated and new information to maintain and fill out data that you're leveraging for analytical models. For example, has a third-party data source changed over time, affecting its overall reliability and quality?

# Appendix A: Methodology

In this study, Forrester conducted an online survey of 409 US-based midsize and enterprise organizations from retail, financial services, insurance, telecommunications, media/entertainment, automotive, energy, and utility industries to evaluate their approach to managing marketing/media data quality. Survey participants included decision makers at the director level and above in marketing/advertising or customer data analytics/ insights roles with responsibility over marketing/media performance insights and measurement decisions and involvement in overseeing the integration of data needed for marketing performance measurement models. Questions provided to the participants asked about their level of confidence that the data they use for marketing/media performance measurement meets certain quality dimensions, the challenges they face in managing data quality, and the benefits they expect to realize from data quality improvements. Respondents were offered a small incentive as a thank you for time spent on the survey. The survey fielding began in April 2019 and was completed in May 2019.

# Appendix B: Demographics



Base: 409 decision makers/influencers with responsibility over marketing/media performance and measurement  
 Note: Some percentages do not total 100 because of rounding.  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Marketing Evolution, May 2019

## Appendix C: Endnotes

<sup>1</sup> Source: “Evaluate Your Data And Information Management Maturity,” Forrester Research, Inc., January 16, 2019.

<sup>2</sup> Source: “Pave The Path To Marketing Measurement Success,” Forrester Research, Inc., January 2, 2018.

<sup>3</sup> Source: “Artificial Intelligence Transforms Marketing Performance Measurement,” Forrester Research, Inc., November 2, 2018.

<sup>4</sup> Source: “The Strategic Role Of Identity Resolution,” Forrester Research Inc., October 17, 2016.

<sup>5</sup> Source: “Pave The Path To Marketing Measurement Success,” Forrester Research, Inc., January 2, 2018.

<sup>6</sup> MPM solutions support marketers in their efforts to govern goal setting, monitoring, and continuous optimization of marketing’s contribution to revenue and other priority business goals. Examples include marketing mix modeling, attribution modeling, unified marketing measurement, and marketing measurement and optimization.