Big Data for Marketing: Targeting Success

It's hard to escape the hype around "Big Data" these days, with the term popping up in the headlines of major daily newspapers and business publications (most recently on the cover of the Harvard Business Review) as well as frequently trending as a topic on social networks. But the hype is happening for a reason, and that's the rising tide of data we're all collectively generating in our off- and on-line worlds and the big promise that all that data can generate powerful and profitable intelligence. The goal of this report is to provide some actionable insight regarding the potential for big data by looking at the strategies, processes, and technologies Best-in-Class firms (see definition on page 2) are adopting around data analytics for marketing today. The key takeaway: While adoption of "big data" per se is nascent, the transition to dynamic, behavior-based segmentation and targeting, and real-time offer management means companies are likely to see significant growth in the volume, velocity, and variety of data.

Data Rich, Information Poor

There's practically nothing we do as consumers, whether for business solutions or personal purchases, that can't be captured and measured digitally. This digital trail provides a wealth of data, but often leaves firms challenged to make sense of it all, a state known as data rich, but information poor. The sense that Marketing has more data than it knows what to do with can be seen in the number of firms planning to increase their use of data analytics for marketing: 98% plan to increase or significantly increase their use of marketing analytics, while 0% plan to decrease (2% say it will remain unchanged). Aside from the abundance of data, what's behind these dramatic numbers?

Keeping up with Customer

Shifting buying behavior is the top pressure that defines approaches to data analytics for marketing, according to Aberdeen's Big Data for Marketing survey of 130 business professionals conducted in November and December 2012 (Figure 1). From new channels, particularly social and digital, to shifts in buying patterns and preferences, companies want to stay on top of how customers and prospects customers are behaving, and when and where they're interacting with individual brands.

Figure 1 also shows that dealing with emerging channels presents a related, frequently-cited pressure, as firms grapple with tracking the performance of digital channels (37%), the proliferation of new marketing communications channels, like social and mobile (35%), and the pressure to understand where to make incremental digital marketing investments (26%).
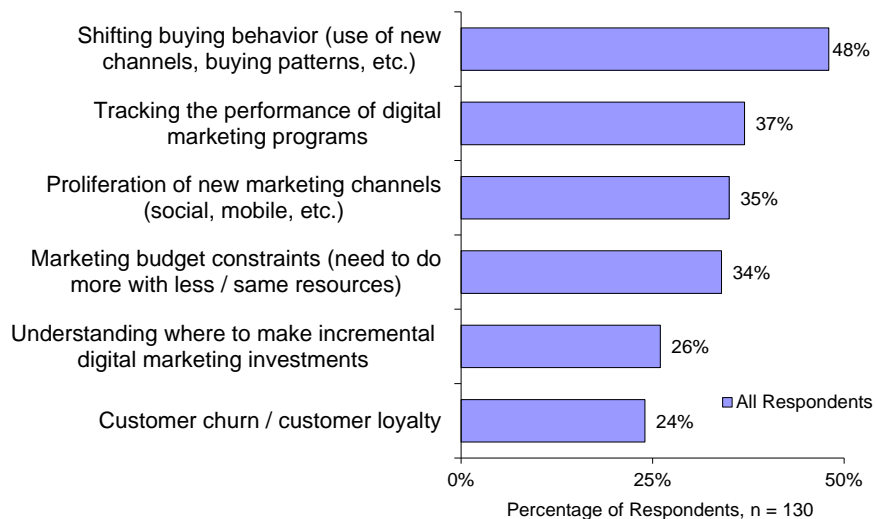
Big Data for Marketing Fast Facts

√ The top three goals that Best-in-Class companies have for marketing data analytics are to increase the response rate of marketing campaigns (38%), increase accuracy of audience targeting (33%), and increase cross-sell revenue (29%).
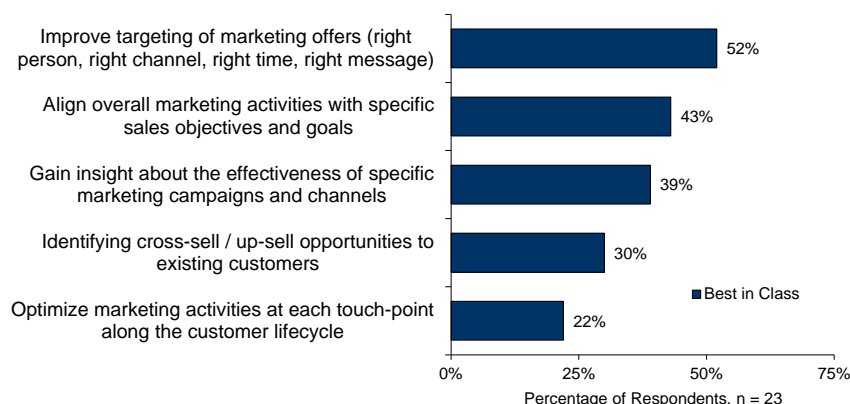
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Figure 1: Shifting Buying Behavior Driving Marketing Analytics

Shifting buying behavior (use of new channels, buying patterns, etc.) — 48%
Tracking the performance of digital marketing programs — 37%
Proliferation of new marketing channels (social, mobile, etc.) — 35%
Marketing budget constraints (need to do more with less / same resources) — 34%
Understanding where to make incremental digital marketing investments — 26%
Customer churn / customer loyalty — 24%

■ All Respondents

Percentage of Respondents, n = 130

Source: Aberdeen Group, December 2012

For Best-in-Class companies, data analytics for Marketing is focused squarely on improving the targeting of offers, thus delivering the right message to the right person through the right channel at the right time (Figure 2). In essence, firms look to understand who customers are and how they're buying across multiple channels so they can optimize the delivery of messages and offers. Figure 2 also shows that the mix of strategic actions Best-in-Class firms take with data analytics combine campaign management and insight with customer analytics. The capabilities outlined below begin to show how firms execute on these strategies, which reflect a shift from static to dynamic customer profiles and campaign management.

Figure 2: Target and Align — Best-in-Class Marketing Analytics Strategies

Improve targeting of marketing offers (right person, right channel, right time, right message) — 52%
Align overall marketing activities with specific sales objectives and goals — 43%
Gain insight about the effectiveness of specific marketing campaigns and channels — 39%
Identifying cross-sell / up-sell opportunities to existing customers — 30%
Optimize marketing activities at each touch-point along the customer lifecycle — 22%

■ Best in Class

Percentage of Respondents, n = 23

Source: Aberdeen Group, November 2012

### Defining the Big Data for Marketing Best-in-Class

Aberdeen used three key performance criteria to distinguish the Best-in-Class (top 20% of aggregate performers) from the Industry Average (middle 50%) and Laggard (bottom 30%) organizations. The metrics used to define the Best-in-Class among these firms are:

√ 31% year-over-year company revenue growth vs. 5% growth for the Industry Average and 10% *decline* for Laggards

√ 6% Average response rate to marketing campaigns, compared with 3% for Industry Average and 1% for Laggard firms

√ 13% year-over-year increase in return on marketing investment (ROMI) vs. 0.9% improvement for Industry Average companies and a 0.9% *decline* among Laggards

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Dynamic Marketing Emerges

Best-in-Class companies are 85% more likely than All Others to identify high-value customers for specialized offers (74% vs. 40%). In fact, this was the most highly-adopted capability identified in our study, suggesting a good first step for companies considering a customer analytics initiative. Less clear from this specific question is how firms are measuring and identifying "value." The lower rate of adoption for a process to determine lifetime customer value seen in Figure 3 suggests that many firms, including many of the Best-in-Class, use more "basic" measures such as contract value or bookings / revenue over a specified period of time to determine what high-value means. Over time, measures of customer value are likely to evolve, as reliable models for influence and propensity gain foothold.

Figure 3: High Value in High Value Customer Profile
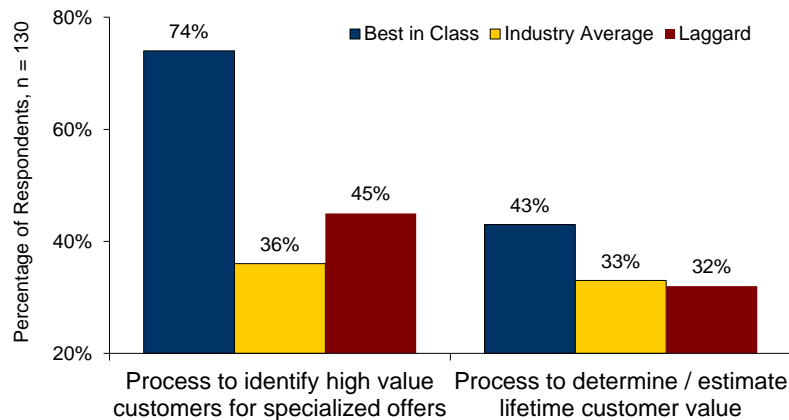
Source: Aberdeen Group, December 2012

Today, traditional methods of demographic and historic segmentation are the order of the day. Particularly in B2B marketing, buyer personas based on common attributes, including customer status (high-value, high-risk, etc.) are used to better target content and marketing offers. As we've seen. recency, frequency, and monetary value (RFM) analysis is not going away, but Aberdeen's research shows the potential for more dynamic, behavioral-based buyer profiling capabilities that complement RFM. Best-in-Class firms are 85% more likely than the Industry Average and 118% more likely than Laggards to generate a behavioral profile based on real-time click-stream analysis (Figure 4).

While overall adoption of the behavioral-oriented capabilities seen in Figure 4 is well below 50% of all firms, the correlation with Best-in-Class performance is evident. These capabilities also correlate to the top-cited pressure of shifting buying behavior noted above. Today, that means observing how buyers behave online, from the sites they visit to the content they consume, like, and share with friends and colleagues on the social web.


Definitions

√ **Big Data** refers to the problems of capturing, storing, managing, and analyzing massive amounts of various types of data. Most commonly this refers to terabytes of petabytes of data, stored in multiple formats, from different internal and external sources, with rigorous demands for speed and complexity of analysis.

√ **Unstructured data** refers to data stored in files, documents, presentations, spreadsheets, web pages and social networks, email messages, instant messages, images, audio files, video files, etc. While each of these formats do indeed have a "structure," conventional use of the term unstructured data is intended to distinguish from data stored in structured database formats (e.g. columnar databases).

(Adapted from Aberdeen's September 2012 report *The State of Big Data*)

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In fact, Best-in-Class firms are nearly twice as likely as All Others to optimize marketing offers or the web experience based on the buyer's social profile (42% vs. 22%; Figure 5), and Best-in-Class are twice as likely as All Others to merge customer data in the CRM with online behavioral data to optimize the digital experience (30% vs. 15%; Figure 4).

**Figure 4: Keeping Up with Customers — Dynamic Behavior Profiles**
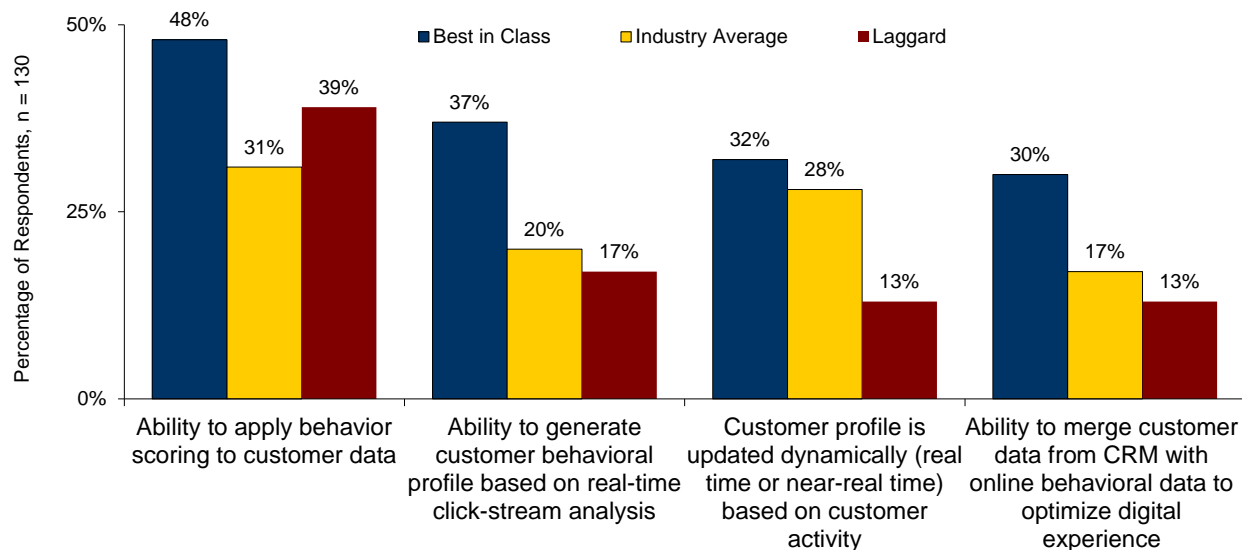
Source: Aberdeen Group, December 2012

The trend from static to dynamic information management can also be seen when looking at firms' ability to translate data into dollars through marketing offers. While Best-in-Class companies are 24% more likely than All Others to customize marketing offers for specific market segments (61% vs. 49%), they're 85% more likely to customize offers to individuals (48% vs. 26%). This shows the superior ability of Best-in-Class firms to understand buyers at an individual level. This is nearly impossible with traditional marketing list segmentation. In theory, firms could generate segments of one, but this is difficult to scale in practice. This ability allows Marketing to become much more precise by managing a broad inventory of profile-driven offer permutations.

Also implied here (and noted more explicitly in the discussion of technology enablers below) is the use of predictive models to isolate components of the creative and offers that are more likely to convert for a given customer. Best-in-Class firms are also more likely to extend these capabilities to managing inbound offers, i.e. content and product promotions displayed to site visitors.

As noted above, the Best-in-Class are more likely to optimize marketing offers and web content based on the social profile of the buyer (contained within the CRM or via a social sign-on). The Best-in-Class are also more

likely to optimize inbound channels in real time. For example, they may show the customer the next offer based on the visitor's click-stream pattern, browsing history, or email marketing history (have they been to the site before or to a competitor's site, are they from a target account, a high-risk customer, or did they click through to the last email promotion?).

Figure 5: Dynamic Offers Drive Performance
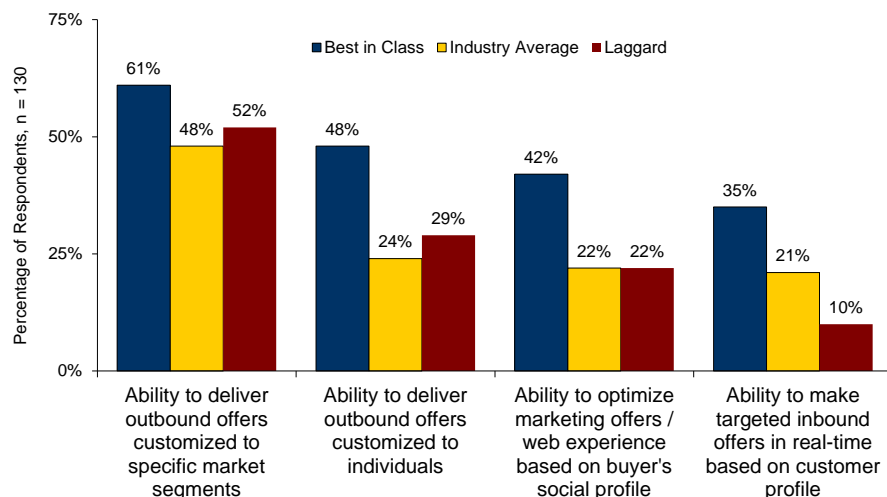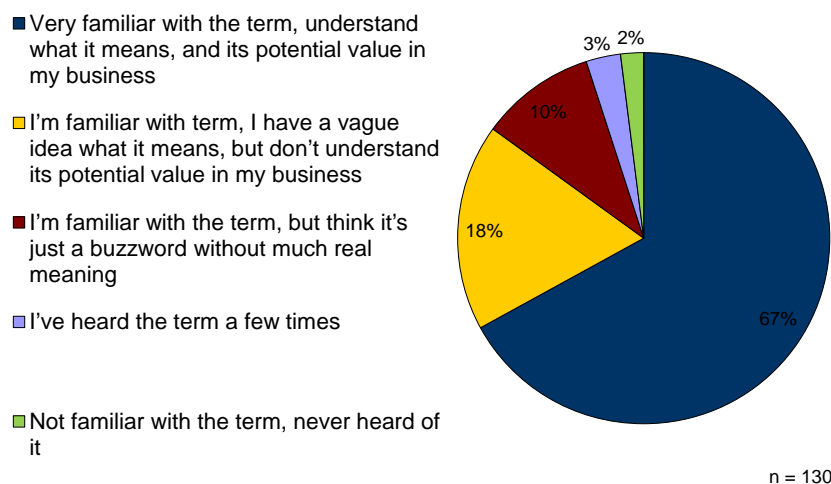

Source: Aberdeen Group, December 2012

Where's the Big Data?

Careful readers may note the lack of "big" in our discussion of data analytics for marketing to this point. While many of the capabilities noted above can be achieved through traditional, (yet sophisticated) data analytics tools and techniques, the increasing volumes of unstructured data and the value of real-time responsiveness are likely to expand requirements. In many respects, big data is in the eye of the data analyst. Aberdeen's _The State of Big Data_ report (September 2012) suggests that big data begins around five terabytes of active business data. But big data also implies data sets that surpass the ability for traditional data analysis to derive value, including a preponderance of unstructured data. To this point, 37% of Best-in-Class companies are able to incorporate unstructured data into their analytical models, compared with 28% of the Industry Average and 13% of Laggards.

The data sources for social profile and behavioral targeting discussed above have two things in common. One is that much of the data is unstructured. Social information is a good example, as data from social profiles and posts is likely to take a variety of mostly text-based formats. Techniques such as text analytics and natural language processing (NLP) may help distill context from these sources, but require processing in their own right. These data sources are also growing significantly, as consumers become more prolific on social channels and brands become more adept at listening. But it's not just social data, as noted above. Many Best-in-Class firms mine click streams

to develop granular customer profiles. Best-in-Class companies are 60% more likely than All Others to incorporate clickstream data into their data analytics (32% vs. 20%).

While adoption of big data may be nascent, a wide majority of firms we surveyed expressed both an understanding of the term and its potential for value in their business, while only 10% saw the term as a "buzzword without much real meaning" (Figure 6). So with 98% of firms planning to increase their use of data analytics for marketing and 67% of them convinced of the merits of big data, what's standing in the way of more companies achieving competency in the capabilities outlined above? The ability to access and integrate data sources emerges as a top issue.

Figure 6: Big Data for Marketing — More BFD than NBD

- ■ Very familiar with the term, understand what it means, and its potential value in my business
- ■ I'm familiar with term, I have a vague idea what it means, but don't understand its potential value in my business
- ■ I'm familiar with the term, but think it's just a buzzword without much real meaning
- ■ I've heard the term a few times
- ■ Not familiar with the term, never heard of it

n = 130

Source: Aberdeen Group, December 2012

The lack of integrated data sources is the top-cited factor impacting both the adoption of data analytics by Marketing (Figure 7) and ability to get full-value from marketing data sets. A third of firms also cited the ability to identify a viable use case and availability of talent. Interestingly, for all the talk of unstructured data, only 22% of firms cited inaccessible data formats or unstructured data as a factor inhibiting marketing analytics adoption, and only 10% cited it as a factor limited the value of marketing data sets. This may simply suggest that firms just aren't "there yet" in terms of pushing the limits of unstructured data to the point that they experience the pain (recall that just 38% of Best-in-Class companies incorporate unstructured data into their models).

Big Data for Marketing Fast Facts

√ Best-in-Class companies are 61% more likely than All Others to be able to incorporate unstructured data into their analytical model (37% vs. 23%)

√ 23% of Best-in-Class companies in the Aberdeen Business Review (ABR) survey of 184 sales and marketing professionals conducted in August 2012 currently have a big data initiative under way, compared with 19% of the Industry Average and 14% of Laggards

Figure 7: Top Barriers to Marketing Analytics Adoption
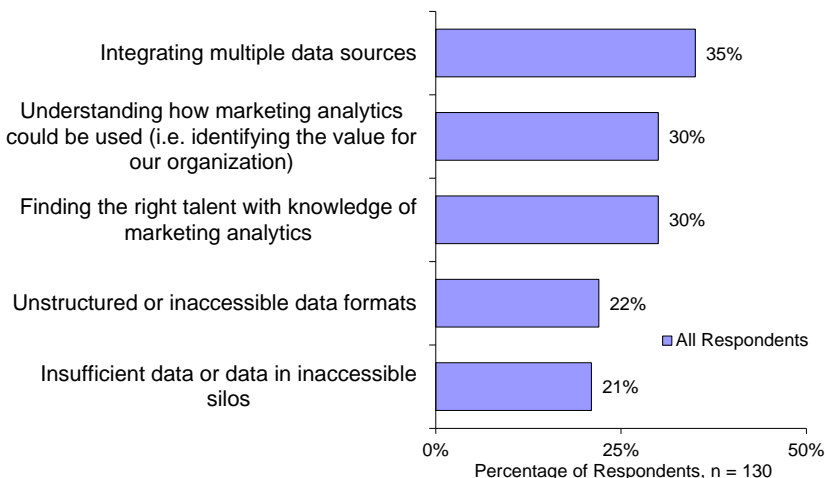
Source: Aberdeen Group, December 2012

The role of IT in supporting marketing immediately comes to mind in a discussion of data integration. Best-in-Class companies are 1.5-times more likely than the Industry Average to describe the relationship between Marketing and IT as "strong," while Laggards are 29% more likely than Industry Average to describe this relationship as "poor" (Figure 8). In many ways, alignment of Marketing and IT should be viewed as a proxy for the importance of organizational cooperation and collaboration, given the importance of data access to the adoption and value of data analytics for marketing (discussions often need to start with the business owners of applications, who should be convinced of the value the analytics initiative will deliver to their business and group).

Figure 8: Hug a Geek — State of IT / Marketing Alignment

Source: Aberdeen Group, December 2012
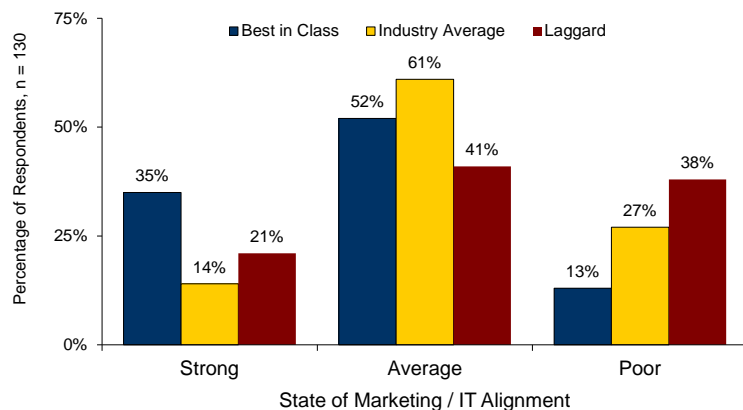
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Technology Adoption

Predictive analytics tools lead the pack in terms of Best-in-Class data analytics technology (Figure 9). The value of predictive analytics has been well-established in Marketing for several years, particularly in consumer marketing, and is likely to be the context through which many firms begin to adopt big data (i.e. big data provides compelling new sources of attributes for predictive models to incorporate). Another area to watch is in-memory computing. Best-in-Class companies are twice as likely as All Others to use in-memory computing technology (42% vs. 21%). In-memory platforms and data warehouse appliances, which are optimized for processing speed, are an essential component of real-time event management, such as the ability to optimize the web experience or inbound offers presented to buyers.

As data analytics technology evolves and Marketing use increases, users can expect to find advanced analytics embedded within both special-purpose marketing applications and marketing management platforms. Web analytics provides a useful prologue for purpose-built analytics applications. Many digital marketing and integrated marketing management platforms are starting to embed sophisticated analytics — including big data analytics — to manage and optimize multi-channel, multi-media touch points, from display ads and mobile messages to email and geolocation marketing.

The trends towards empowerment of business users discussed in Aberdeen's July 2012 report *Predictive Marketing Analytics: Increasing Ease-of-Use Opens New Classes of Applications* (this trend was reaffirmed in the Big Data for Marketing research, in which marketing managers at Best-in-Class firms are 46% more likely than All Others to be able to use predictive analytics tools without dedicated statistical experts, (38% vs. 26%)) increase the value of marketing-specific applications built on top of a data analytics platform. For example, Best-in-Class firms are 45% more likely than All Others to use a customer or marketing analytics solution (55% vs. 38%).

Figure 9: Predictive Value — Best-in-Class Adoption of Data Analytics Technologies for Marketing

Source: Aberdeen Group, December 2012

Big Data for Marketing Fast Facts

√ Best-in-Class companies are 45% more likely than All Others to use a customer- or marketing-specific analytics solution (55% vs. 38%)
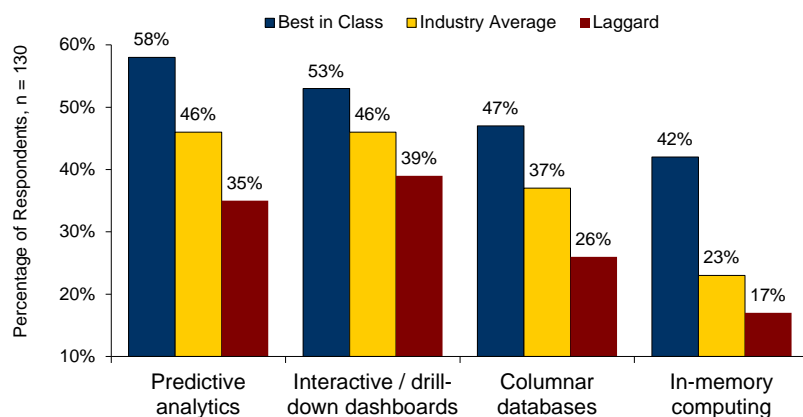
Key Takeaways

Big data may be getting big buzz at the moment, but Aberdeen's research suggests the buzz is well founded as Best-in-Class companies enjoy the benefits of behavior-based segmentation and targeting along with real-time offer management. As the value of these efforts become apparent and more widely adopted, it's inevitable that both use cases and data volumes will expand.

Firms that don't have a data analytics for marketing initiative in place should look for projects they can use to develop capabilities in this area. One place to start is by defining high-value customers for specialized offers and identify attributes associated with these firms as the basis of segmentation.

Firms that have started using data analytics for marketing should consider expanding their models to incorporate behavior-based profiling, real-time ad and offer management, and predictive analytics. In doing so, they should also examine the scalability of their approach as new and / or non-traditional data sources are incorporated within their efforts. Click stream and social data are perhaps obvious starting points as a basis for personalization of content and offers.

Firms should consider the technology platform to support these efforts that matches their internal capabilities, as well as one that meets current requirements while providing flexibility to expand in terms of data volumes and variety, as well as application. Special-purpose applications are likely to be a better fit for firms with few IT and data science resources, but may limit application. Firms with extensive IT and data science resources at their disposal may find a custom solution a better fit for their environment.

Since data analytics success depends greatly on access to a variety of data sources, all firms should keep the importance of organizational alignment in mind at both the technical and line-of-business level.

The report provides a glimpse of where data analytics for Marketing is heading. Buyers are both discovering new channels for interaction and research, while expecting more from the companies they do business with, both in the consumer and B2B realm. This activity is making a flood of data available to marketers, from web analytics and social profile information, to CRM and transactional data, as well third-party data with varying levels of intelligence baked in. The firms that know how bring these disparate sources together will find new ways to successfully connect with prospects and optimize the customer experience.

For more information on this or other research topics, please visit www.aberdeen.com.

Related Research	
The State of Big Data; September 2012	*Revenue Performance Management Demystified*; June 2012
Predictive Marketing Analytics: Increasing Ease-of-Use Opens New Classes of Applications; July 2012	*Divide & Conquer: Using Predictive Analytics to Segment, Target and Optimize Marketing*; February 2012
Customer Analytics: Leveraging Big Customer Data to Achieve Big Results; June 2012	*Predictive Analytics for Sales and Marketing: Seeing Around Corners*; January 2012
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