Big Data Ups The Customer Analytics Game

Introduction

In the age of the customer, enterprises invest in creating actionable customer intelligence and spend more on integrating data sources, developing multidimensional views of customers, building predictive algorithms, and activating insights in real time.[1] The impact of customer intelligence and analytics on acquisition, retention, and profitability has become a driving force in how organizations manage their business. At the same time, the advent of big data is increasingly driving organizations to rethink traditional analytics approach. With this, organizations are prioritizing investments in big data and analytics in their efforts to win, serve, and retain customers.

In December 2013, IBM commissioned Forrester Consulting to dive deeper into the trends surrounding big data and analytics to strategically examine the goals, challenges, and impact associated with customer analytics.

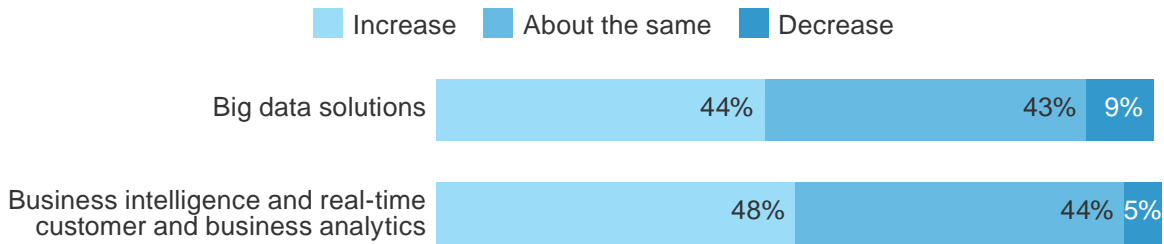# Interest In Big Data And Predictive Analytics Gains Momentum

There is more customer data available than ever before, and organizations are looking for ways to leverage customer analytics in a way that turns information into actionable intelligence. Marketers have the opportunity to understand customers across the entire customer life cycle, but in the age of big data, translating analytics into business results requires strategic solutions. According to Forrester's Forrsights Budgets And Priorities Survey, Q4 2013, 44% of organizations in North America are planning to increase the budget for big data solutions, while 48% plan to allocate

more IT spending toward business intelligence and real-time customer and business analytics (see Figure 1).

Moreover, organizations are recognizing the importance of going beyond backward-looking customer analytics. While descriptive analyses offer a suitable snapshot of past and current customer behavior, predictive analytics deepens insight and value by informing future action. It is therefore not surprising that 24% of organizations surveyed for Forrester's Forrsights Strategy Spotlight: Business Intelligence And Big Data, Q4 2012, are planning to implement predictive analytics within the next two years. This is on top of the 35% of organizations that have already implemented predictive analytics (see Figure 2).

FIGURE 1
Software Spending On Big Data, Business Intelligence, And Customer Analytics
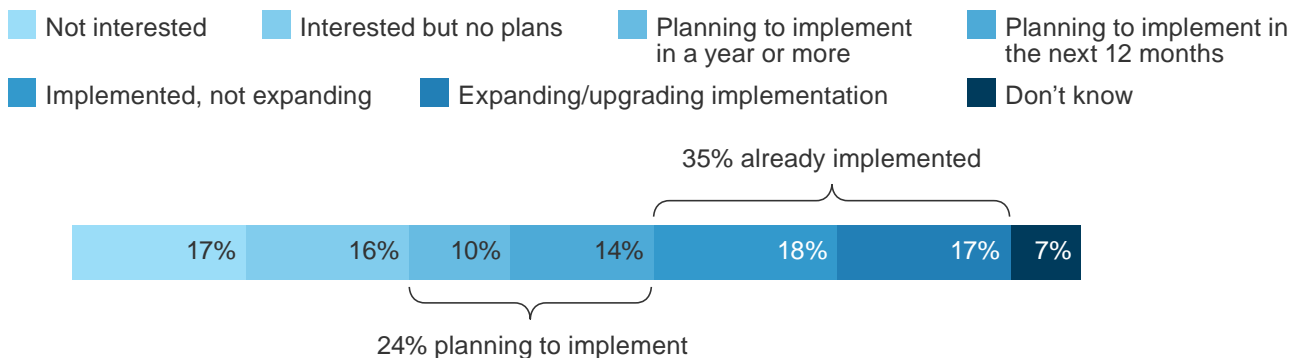
"How do you expect your firm's spending on the following software categories to change in 2014 compared with 2013?"

Increase   About the same   Decrease

| Big data solutions | 44% | 43% | 9% |

| Business intelligence and real-time customer and business analytics | 48% | 44% | 5% |

Base: 1,112 business decision-makers in North America

Source: Forrsights Budgets And Priorities Survey, Q4 2013, Forrester Research, Inc.

FIGURE 2
Predictive Analytics Implementation Plans

"What are your firm's plans to implement predictive analytics?"

Not interested   Interested but no plans   Planning to implement in a year or more   Planning to implement in the next 12 months

Implemented, not expanding   Expanding/upgrading implementation   Don't know

35% already implemented

| 17% | 16% | 10% | 14% | 18% | 17% | 7% |

24% planning to implement

Base: 1, 153 business intelligence planners in North America

Source: Forrsights Strategy Spotlight: Business Intelligence And Big Data, Q4 2012, Forrester Research, Inc.

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Today, Firms Use Customer Analytics To Personalize And Deepen Relationships

Customer analytics is foundational to understanding insights across the customer life cycle. Respondents surveyed for this profile were asked about the role that analytics plays across six stages of the customer life cycle at their organization (see Figure 3).

› **Analytics are used heavily in customer retention efforts.** Eighty-two percent of organizations stated that they always or usually use analytics to retain existing customers, while another 18% indicated they use them, but less frequently (none of the respondents surveyed
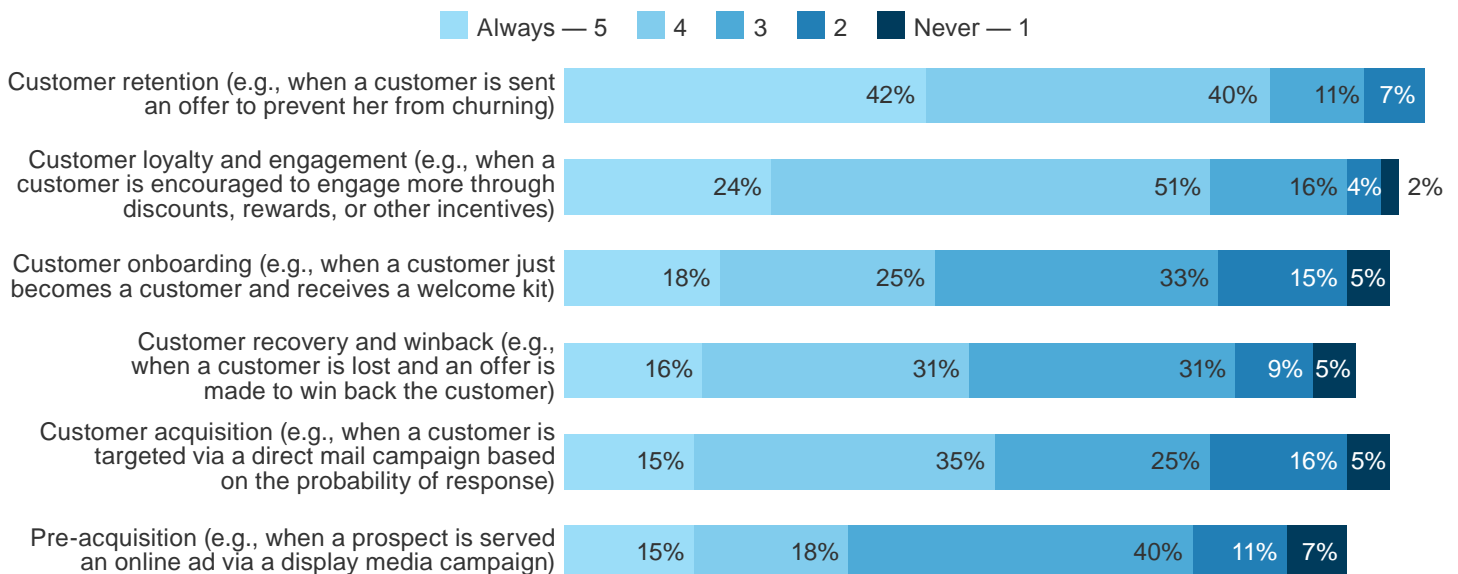
selected "never"). Similarly, 75% always or usually utilize customer analytics to encourage loyalty and engagement. This indicates an interest and adoption of customer analytics to deepen and strengthen existing relationships.

› **Customer acquisition initiatives are less reliant on analytics.** One of the top goals of customer analytics for respondents in this profile is to improve the customer experience and maintain relevancy across channels. Channel-based analytics used to derive insights about the health of customer acquisition efforts do not achieve this result, and thus we see that only 50% of respondents indicated they always or usually use analytics during this stage of the customer life cycle, while only 33% use analytics to enable pre-acquisition.[2]

FIGURE 3

How Customer Analytics Are Used Throughout The Customer Life Cycle

In order of priority, please rank the extent to which you use customer analytics across each stage of the customer life cycle.

Legend: Always — 5 | 4 | 3 | 2 | Never — 1

Stage	Always — 5	4	3	2	Never — 1
Customer retention (e.g., when a customer is sent an offer to prevent her from churning)	42%	40%	11%	7%	
Customer loyalty and engagement (e.g., when a customer is encouraged to engage more through discounts, rewards, or other incentives)	24%	51%	16%	4%	2%
Customer onboarding (e.g., when a customer just becomes a customer and receives a welcome kit)	18%	25%	33%	15%	5%
Customer recovery and winback (e.g., when a customer is lost and an offer is made to win back the customer)	16%	31%	31%	9%	5%
Customer acquisition (e.g., when a customer is targeted via a direct mail campaign based on the probability of response)	15%	35%	25%	16%	5%
Pre-acquisition (e.g., when a prospect is served an online ad via a display media campaign)	15%	18%	40%	11%	7%

Base: 55 managers and above who are involved in big data and/or customer and marketing analytics in North America
Note: "Don't know" responses not shown

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, January 2014
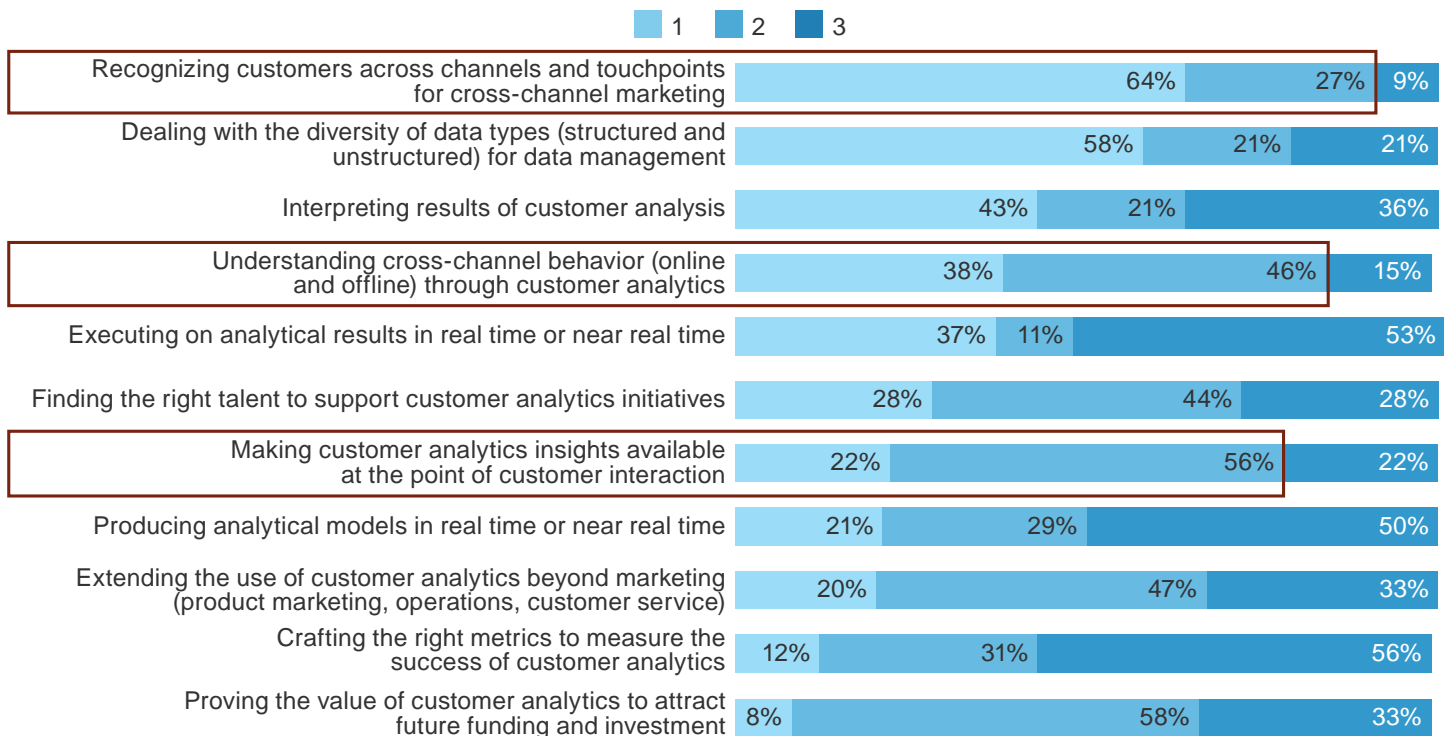
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But Customer Recognition, Data Integration, And Real-Time Insights Still Irk Firms

It is clear that harnessing analytics to extract valuable insight is at the forefront of sharpening an organization's competitive edge. Yet in this age of big data, where the customer is perpetually connected and the data increasingly unstructured, it can be challenging to effectively realize the vast potential. Enabling analytics across customer touchpoints and integrating diverse types of data is difficult. As part of this study, customer insights professionals were asked to rank their top three challenges when it comes to customer and marketing analytics. Sixty-four percent said that recognizing customers across multiple channels and touchpoints was the biggest challenge, followed by 58% who felt that dealing with the diversity of data types was the most challenging (see Figure 4). Seventy-eight percent also found it difficult to harness real-time analytics and make the insight actionable at the point of customer interaction. Conversely, being able to prove the value of customer analytics came in at the bottom of the list of challenges because customer analytics as a capability is no longer a hard sell within an organization.

FIGURE 4
Customer Analytics Challenges

Please rank your top three challenges for customer and marketing analytics over the next 12 to 24 months.

Legend: 1, 2, 3

Challenge	1	2	3
Recognizing customers across channels and touchpoints for cross-channel marketing	64%	27%	9%
Dealing with the diversity of data types (structured and unstructured) for data management	58%	21%	21%
Interpreting results of customer analysis	43%	21%	36%
Understanding cross-channel behavior (online and offline) through customer analytics	38%	46%	15%
Executing on analytical results in real time or near real time	37%	11%	53%
Finding the right talent to support customer analytics initiatives	28%	44%	28%
Making customer analytics insights available at the point of customer interaction	22%	56%	22%
Producing analytical models in real time or near real time	21%	29%	50%
Extending the use of customer analytics beyond marketing (product marketing, operations, customer service)	20%	47%	33%
Crafting the right metrics to measure the success of customer analytics	12%	31%	56%
Proving the value of customer analytics to attract future funding and investment	8%	58%	33%

Base: 55 managers and above who are involved in big data and/or customer and marketing analytics in North America
Note: "Don't know" and "Other" responses not shown
Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, January 2014
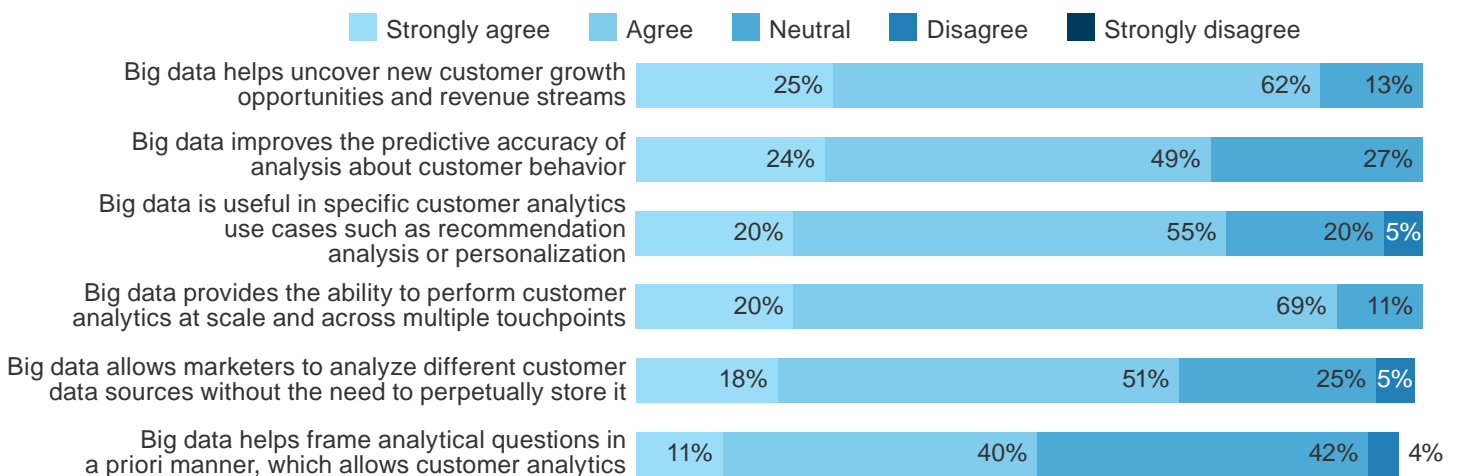
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Organizations Place Their Bets On Big Data To Improve Scale, Agility, And Quality Of Customer Analytics

Tackling these challenges requires tools and technologies that can handle the vast amount of information and facilitate a predictive analytics process that is fast, agile, and scalable. In the age of big data, a proactive strategy can set a business apart, and organizations today view big data and analytics as a way to enable growth and understand customers more deeply. Results from this custom study indicate that 89% of respondents believe that big data

provides the ability to perform customer analytics at scale and 87% of organizations view big data largely as a way to uncover growth opportunities and revenue streams. (see Figure 5). This indicates an interest to turbocharge customer analytics methods with big data approaches and drive customer growth. Looking ahead, 77% expect that big data will allow adoption of emerging analytic methods to better predict customer behavior, and 66% see big data as a way to turn insight into action (see Figure 6). This indicates the desire to use big data to push the boundaries of what's possible with traditional analytical methods and convert that understanding into actionable results.

FIGURE 5
Current Impact Of Big Data On Customer Analytics

Please indicate your level of agreement on how big data impacts customer analytics today.

Legend: Strongly agree | Agree | Neutral | Disagree | Strongly disagree

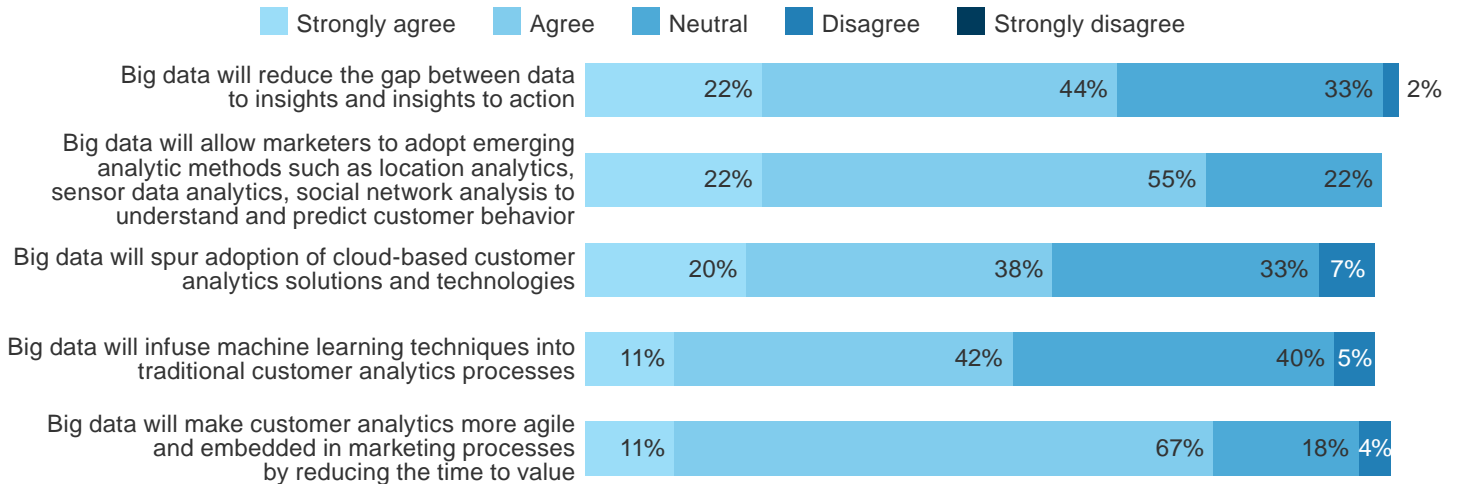|	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Big data helps uncover new customer growth opportunities and revenue streams	25%	62%	13%		
Big data improves the predictive accuracy of analysis about customer behavior	24%	49%	27%		
Big data is useful in specific customer analytics use cases such as recommendation analysis or personalization	20%	55%	20%	5%	
Big data provides the ability to perform customer analytics at scale and across multiple touchpoints	20%	69%	11%		
Big data allows marketers to analyze different customer data sources without the need to perpetually store it	18%	51%	25%	5%	
Big data helps frame analytical questions in a priori manner, which allows customer analytics	11%	40%	42%	4%	

Base: 55 managers and above who are involved in big data and/or customer and marketing analytics in North America
Note: "Don't know" responses not shown

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, January 2014

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FIGURE 6

Future Impact Of Big Data On Customer Analytics

Please indicate your level of agreement on how big data will impact customer analytics in the next 12 to 24 months.

Legend: Strongly agree | Agree | Neutral | Disagree | Strongly disagree

	Strongly agree	Agree	Neutral	Disagree
Big data will reduce the gap between data to insights and insights to action	22%	44%	33%	2%
Big data will allow marketers to adopt emerging analytic methods such as location analytics, sensor data analytics, social network analysis to understand and predict customer behavior	22%	55%	22%	
Big data will spur adoption of cloud-based customer analytics solutions and technologies	20%	38%	33%	7%
Big data will infuse machine learning techniques into traditional customer analytics processes	11%	42%	40%	5%
Big data will make customer analytics more agile and embedded in marketing processes by reducing the time to value	11%	67%	18%	4%

Base: 55 managers and above who are involved in big data and/or customer and marketing analytics in North America
Note: "Don't know" responses not shown
Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, January 2014

Conclusion

Big data changes the way organizations adopt customer analytics and opens up a myriad of use cases to inject insights to improve overall customer experience across the life cycle, not just acquire more customers. The combination of customer analytics and big data promises to help organizations overcome challenges associated with scale, agility, and relevance. In the age of the customer, organizations that have the ability to benefit and capitalize on this combination stand out among their competitors.

Methodology

This Technology Adoption Profile was commissioned by IBM. To create this profile, Forrester leveraged its Forrsights Strategy Spotlight: Business Intelligence And Big Data, Q4 2012, and Forrsights Budgets And Priorities Survey, Q4 2013. Forrester Consulting supplemented this data with custom survey questions asked of IT and business managers and above in the US. Survey respondents included people with responsibility for their organization's analytics spending. The auxiliary custom survey was conducted in January 2014. For more information on Forrester's data panel and Tech Industry Consulting services, visit www.forrester.com.

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Endnotes

[1] Source: "Competitive Strategy In The Age Of The Customer," Forrester Research, Inc., October 10, 2013.

[2] Source: "How Analytics Drives Customer Life-Cycle Management," Forrester Research, Inc., November 19, 2012.

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