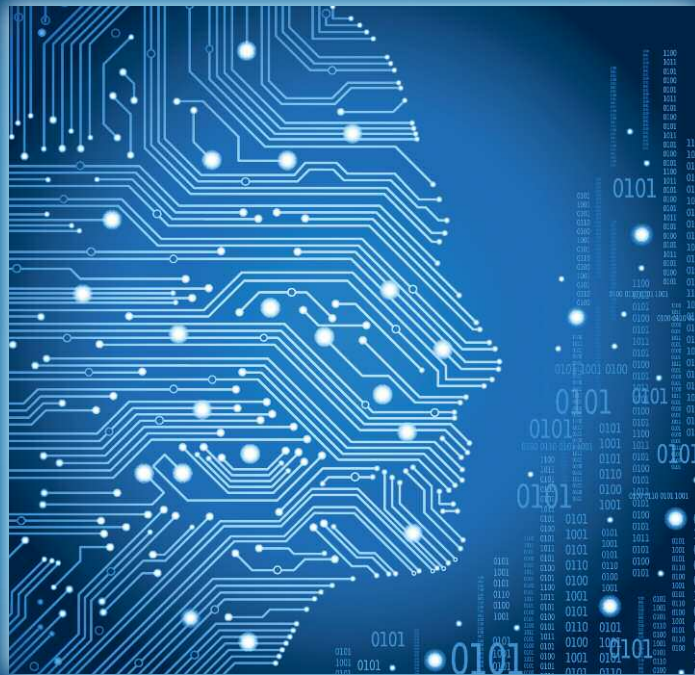


# CONQUERING BIG DATA



A Study of Analytical Skills in the Workforce

## About This Study

For its 2013 study of analytics needs in the workforce, American Management Association (AMA) and i4cp fielded a survey that garnered responses from 789 businesspeople representing a variety of industries (50+ industries), global locations (40+ countries), and organizational structures and sizes (1–10,000+ employees).

### Terms

- **Analytics:** The method that an organization uses to collect and evaluate data for decision-making purposes. Decisions based on experience or “gut feeling” would not be considered analytical decisions.
- **Market Performance Index (MPI):** Occasionally this study emphasizes the link between survey responses and overall organizational performance. i4cp’s Market Performance Index (MPI) combines responses to questions in four key areas of business success: revenue growth, market share, profitability, and customer satisfaction. Tables and graphs throughout this report show the strength of these correlations, that is, the statistical relationship between the participants’ responses to specific topics and their companies’ MPI scores.
- Organizations in the higher quartile of MPI scores are designated **High-Performing Organizations (HPOs)**.
- Organizations in the lower quartile of MPI scores are designated **Low-Performing Organizations (LPOs)**.
- **Big Data:** Although no commonly accepted definition exists for this relatively new term, this study uses the definition put forward by Cukier and Mayer-Schonberger: “things one can do at a large scale that cannot be done at a smaller one, to extract new insights or create new forms of value, in ways that change markets, organizations, the relationship between citizens and governments, and more.”

### Study Techniques

The participants for the 2013 survey were drawn from two sources: American Management Association and its global affiliates and i4cp’s global survey panel. The total respondent population was 789. The final population of participants included over 50 industry sectors from over 40 countries. Most questions in this study used 5-point Likert-scale type questions, with a 1 rating generally designated as “not at all” and a 5 rating as “very high extent.” The survey contained 21 survey questions, not including demographic questions and those used to calculate the MPI.

## Executive Summary

Recent organizational research points to an urgent call for analytics talent across organizations. Only one-quarter of all companies in this study felt they were equipped to meet today's analytics needs, but top-performing companies are not content to play catch-up. Instead, these companies are building analytics capabilities mostly through training, but also through recruitment.

Two of the reasons companies need greater analytical skills are a massive influx of data and less expensive but more powerful technology that will enable a future increase in the use of Big Data. Organizations with fully developed analytics skills—the ability to organize, analyze, and communicate data that can be applied to their human capital and not just to the other elements of their businesses—will continue to be the top performers in the years to come. Criteria that differentiate analytical from less-analytical companies are the following:

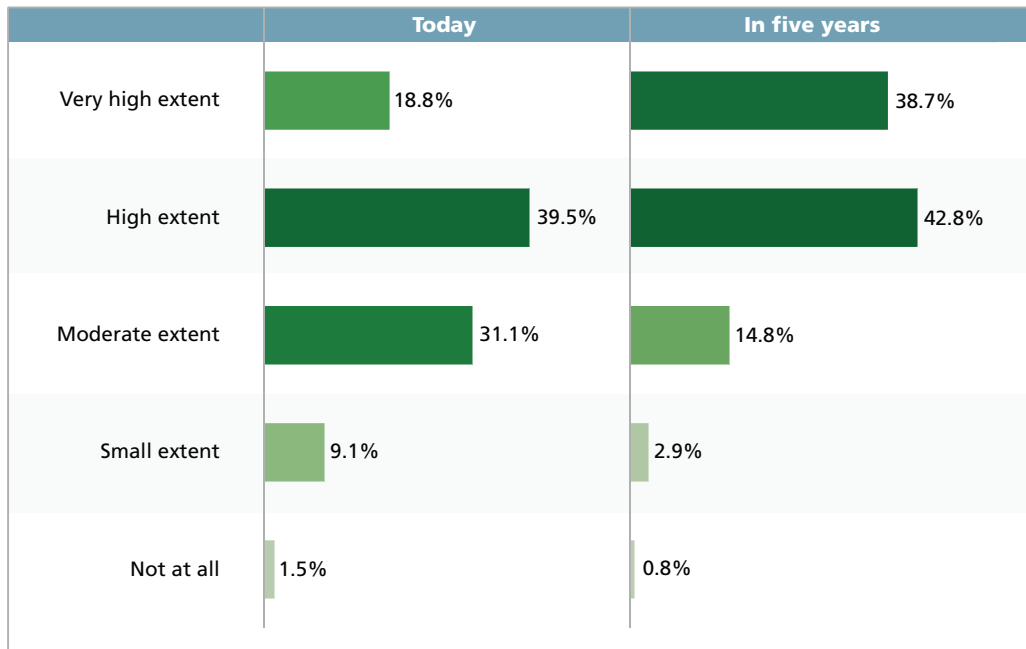
1. All leadership possesses analytical capabilities.
  - Across all functions, departments, and even generational groupings, analytical companies have analytical skills distributed throughout the organization, with an emphasis on those skills among leadership.
2. Analytical organizations look to increase analytical capabilities through hiring and training, with an emphasis on educating current employees.
  - Analytical companies are aware that the lack of analytical talent in the market is driving up recruiting costs for those who possess it. Training existing employees and moving employees across functions can help save money and time.
3. Analytical organizations are prepared to use Big Data in the decision-making process.
  - Analytical companies use the massive amounts of data available to them. Instead of being overwhelmed, data-focused organizations turn that data into information on which to base decisions on strategic workforce planning, recruitment, and productivity.
4. Analytical organizations embrace the analytical mindset.
  - Analytics is more than being skilled at manipulating data. The executive teams at many top companies have analytical abilities that surpass other departments. They understand the value of evidence-based decision making and the insights that can be derived from rigorously analyzing broad sets of data.

## Key Findings 1

*Analytics are important today and will be even more important in the future.*

Overall, 58% of company leaders say analytics are important to their organizations now, and 82% say they will be important in five years. Less than 1% of companies say analytics will not be important to their business in five years, an unambiguous indication that analytics will be a ubiquitous part of the business world by the end of the decade.

**To what extent are analytics in your business important today?  
In five years?**

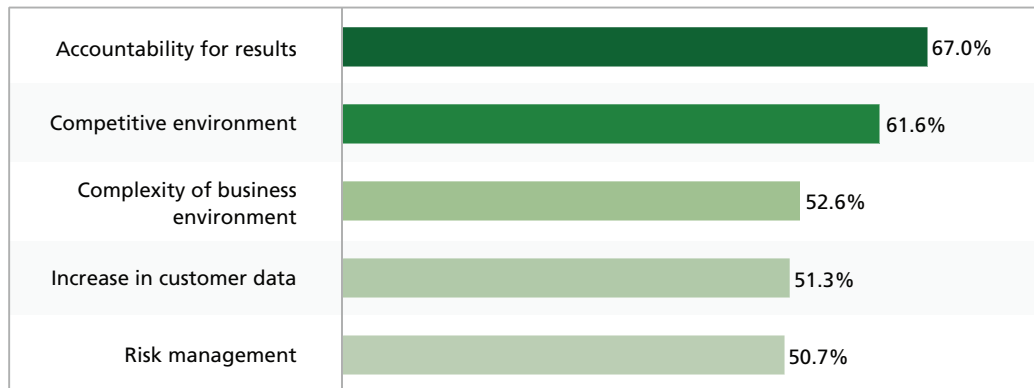


Many companies have already embraced the need for analytics skills, and many of today’s most successful companies—Google, Amazon, IBM—use data in ways that generate revenue. The analytical skills built into their organizations allow them to make the most of the data available to them and to use data in other ways that create value—data that would sit unused at other organizations.

## Key Finding 2

*Competitive and performance pressures are driving the need for better analytics.*

**Which of the following create the greatest need for analytical skills in your organization?**



Competition, adaptability, risk prediction—offensive and defensive strategies are both improved by analytics. Historically, reliance on data has a negative connotation, and not just in business. *Moneyball*, the bestselling book and subsequent 2011 movie, tells of the battle between “old-school” baseball scouts, who use their gut instincts to assess players, and the “new-school” sabre-metrics scouts, who analyze players based on the objective evidence of statistics that measure in-game activity. Another high-profile example was seen during the 2012 presidential election, when Nate Silver was widely derided for the bold predictions he made using purely statistical modeling—until election night, when his predictions were shown to be 100% accurate.

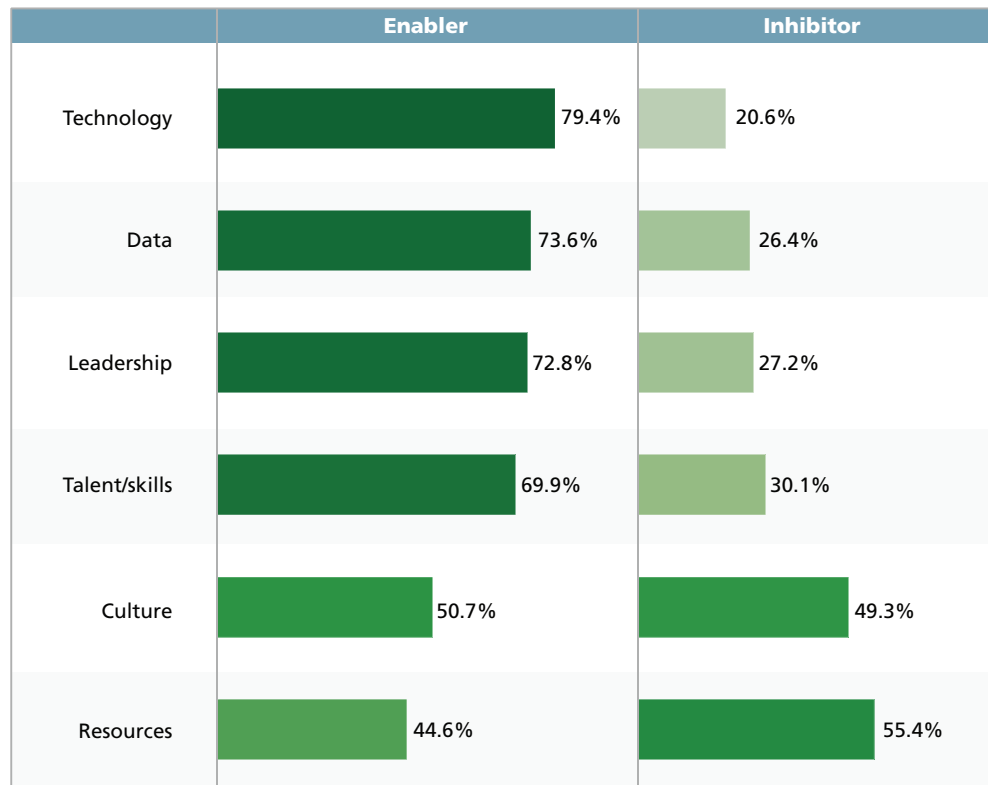
Some managers might feel threatened by greater reliance on data for decision making and objective analysis of their abilities to manage. A common refrain is that “management’s an art, not a science,” which is a mindset that leads some to view new analytical methods of dealing with data skeptically. But these holdouts, like their predecessors in most other fields, could easily be swept away by the cresting wave of business analytics if they lack the ability or the will to learn new methods and ways of thinking.

### Key Finding 3

*Technology, data, leadership, and skills enable analytics; resources and culture are table stakes.*

Technology, data, leadership, and skills are viewed predominantly as factors that can enable the development of an analytical organization, whereas culture and resources are necessities that can inhibit the process if not present.

**Which of the following is an enabler or inhibitor in your efforts to build an analytical organization?**



In other words, having an accepting culture and adequate resources won't necessarily help you become more analytical, but having the right technology, leadership, et cetera, can. Resources and culture are necessities, but not a springboard.

### Key Finding 4

*Analytical acumen is highest among leaders and managers, members of R&D, the executive team, and Gen X'ers.*

Companies are better positioned for overall market success when they use data, analysis, statistics, and probability to define and solve problems. That mindset has to come from the top to set direction for the company and to support analytical frameworks for understanding and making strategic decisions. Because of this, strong analytical acumen and support among senior leaders is definitely a plus for building an organization's capabilities to use data effectively.

The analytical acumen at surveyed companies is highest among leaders (74% reported advanced or expert levels), those sitting on the finance or executive teams (58% and 51% respectively), and those in the "Gen X" generational cohort (58%). This might indicate that companies that have taken a more analytical mindset are those that truly understand how to harness this new way of doing business.

**Rank the analytical ability at your company by job level**

	Nonexistent	Novice	Adept	Expert
Leader	3.7%	22.3%	50.5%	23.5%
Manager	2.5%	29.0%	54.1%	14.4%
Supervisor	9.1%	39.4%	43.7%	7.8%
Individual contributor	10.0%	36.4%	42.3%	11.3%
Functional expert	7.3%	19.8%	46.0%	26.9%

Rank the analytical ability at your company by job function

	Nonexistent	Poor	Basic	Advanced	Expert
Research and Development	12.0%	11.4%	32.4%	31.0%	13.2%
Executive Team	1.8%	8.8%	38.1%	38.9%	12.4%
Finance	1.3%	5.7%	34.8%	46.0%	12.2%
Operations	1.2%	8.3%	42.5%	38.1%	10.0%
Marketing	6.9%	9.4%	43.2%	31.5%	9.1%
Sales	8.9%	11.4%	45.7%	28.7%	5.3%
Human Resources	6.0%	16.7%	50.4%	22.5%	4.4%

Rank the analytical ability at your company by generational cohort

	Nonexistent	Poor	Basic	Advanced	Expert
Baby Boomers (50-70 years of age)	4.1%	12.3%	43.2%	31.3%	9.1%
Gen X'ers (30-50 years of age)	1.2%	4.7%	35.7%	49.3%	9.1%
Millennials (10-30 years of age)	5.0%	14.3%	46.1%	29.9%	4.7%



As is apparent in the data, a large percentage of analytical acumen also exists at the functional expert level (73% advanced or expert). Functional experts with high analytical ability are certainly not a limitation, unless they are the only people within a company who have that skill. Organizations that want to build their analytics capabilities would do well to have analytical acumen distributed across all levels and job functions.

There is also an attention-grabbing result from the generational cohort section. It would appear that despite millennials' familiarity with technology, they aren't seen as having an equal amount of analytics savvy.

No matter where analytical acumen is found in your organization, having an analytical mindset is still key. Acumen can be developed, but it will only be valuable if there is a desire to make decisions that are based on data.

### Key Finding 5

*Most companies are looking to build analytical skills through training.*

#### Does your organization have the capabilities to meet all its anticipated analytics needs?

Response	Percent
No, we plan on mostly training current staff to reach the needed analytics capabilities	47.2%
We are able to meet all of our anticipated analytics needs	25.8%
No, but we plan on mostly hiring additional analytics staff	16.9%
Other	10.2%

Companies agree that training for analytics is better than hiring for it. Overall, more than twice as many organizations report that they would be training rather than hiring for analytics skills, 47% compared to 17%, respectively.

A 2011 McKinsey report provides some eyebrow-raising predictions about the coming data skills shortage:

In addition, we project a need for 1.5 million additional managers and analysts in the United States who can ask the right questions and consume the results of the analysis of Big Data effectively. The United States—and other economies facing similar shortages—cannot fill this gap simply by changing graduate requirements and waiting for people to graduate with more skills or by importing talent (although these could be important actions to take). It will be necessary to retrain a significant amount of the talent in place; fortunately, this level of training does not require years of dedicated study.

## Key Finding 6

*Training for analytical abilities is most often focused on learning why, not how.*

**To what extent do the following activities successfully build analytical skills within your organization? (select all that apply)**

	Front-line workers	Functional experts	Managers & supervisors	Leaders
Mentoring	51.5%	52.3%	54.3%	45.2%
Cross-functional team-based training	44.0%	51.0%	51.0%	41.1%
Self-study	18.0%	41.1%	31.8%	36.9%
Degree program	23.2%	36.8%	29.8%	30.3%
Classroom training	19.2%	29.5%	30.3%	23.3%
Online training	13.1%	24.5%	24.2%	18.9%

Training for analytical abilities is most often accomplished through mentoring, team-based training, and self-study. Traditional, top-down training is also utilized, but to a lesser degree. The emphasis on organic or unstructured learning strengthens the argument that the most important skill for successful analytical ability is mindset and methods, rather than any specific software or mathematical skill. For successful data analysts, the analytical tools used are secondary to learning to approach problems in an analytical way. This type of learning is more common among mentoring and peer-learning, no matter the level of the worker.

Emphasis on training is not surprising, as the skills needed for proper data analysis—especially in the human capital space—are very much in demand. Thomas Davenport and D.J. Patil’s 2012 article in the *Harvard Business Review*, “The Data Scientist: The Sexiest Job of the 21st Century,” outlined why this job is so hard to fill:

If “sexy” means having rare qualities that are much in demand, data scientists are already there. They are difficult and expensive to hire and, given the very competitive market for their services, difficult to retain. There simply aren’t a lot of people with their combination of scientific background and computational and analytical skills.

Data scientists today are akin to Wall Street “quants” of the 1980s and 1990s. In those days people with backgrounds in physics and math streamed to investment banks and hedge funds, where they could devise entirely new algorithms and data strategies. Then a variety of universities developed master’s programs in financial engineering, which churned out a second generation of talent that was more accessible to mainstream firms. The pattern was repeated later in the 1990s with search engineers, whose rarefied skills soon came to be taught in computer science programs.

**Key Finding 7**

*The top five analytical skills today and in the future involve interpreting and using data.*

**What analytical skills/competencies do you believe are important today and in 3 years? (Top 5 skills)**

	Today	In 3 years
Critical and analytical thinking	91.6%	84.3%
Problem solving	83.5%	74.1%
Data analysis (drawing conclusions)	83.4%	78.0%
Communicating and presenting findings	77.3%	76.5%
Decision making	76.7%	77.4%

**(Bottom 5 skills)**

	Today	In 3 years
Data prep (business math, data manipulation, Excel, other tools)	56.6%	48.8%
Contextual thinking	48.8%	53.0%
Visualization and visual analytics	44.2%	54.6%
Curiosity	40.4%	38.7%
Other	2.6%	2.7%

Respondents to the survey highlight the broader, strategic skills needed for a successful data scientist. Critical thinking, problem solving, analysis—these are the skills associated with making decisions, not making spreadsheets. Data preparation and visual analytics were seen as far less critical.

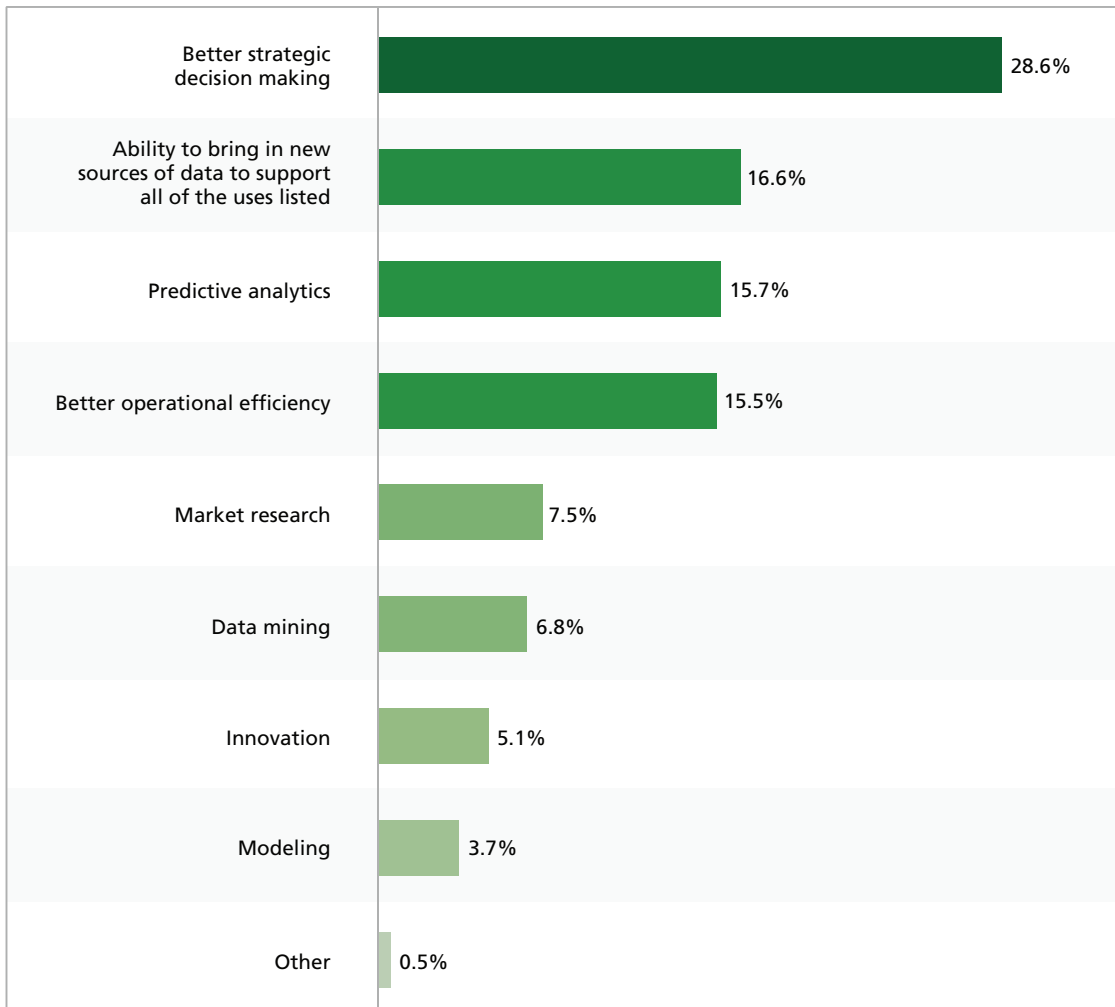
Much demand for data analysis comes from the emergence of Big Data, defined by Gartner as “high-volume, high-velocity, and/or high-variety information assets that require new forms of processing to enable enhanced decision making, insight discovery and process optimization.” Until recently, the use of Big Data was restricted to massive government organizations and Internet companies with access to overwhelming data streams.

In the last few years, however, smaller organizations have been tapping into Big Data—first in departments like finance, operations, and marketing, but more recently to enhance decision making related to human capital.

### Key Finding 8

*The most valuable benefit of Big Data is better decision making.*

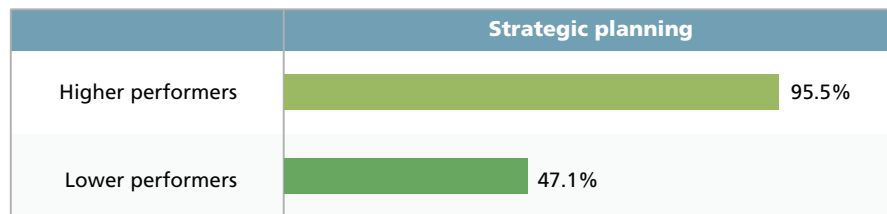
**Which of the possible uses for Big Data are of most value to your organization?**



The fundamental need for better strategic decision making is the leading reason for tapping into Big Data. Many see the promise of analytics for enhancing decision making and have identified the need to increase analytical skills and capabilities to support this.

High-performing companies—as determined by market share, profitability, customer satisfaction, and revenue growth—are already using data for strategic decision making, as evidenced by the following query in a 2012 i4cp analytics survey:

**Why do you collect data?**



(Source: i4cp's *Challenges and Usage of HR Analytics*, 2012)

Successful companies tend to be those that are using data to anticipate and prepare rather than to react to daily problems. Lower-performing companies that are seeking to improve should aim to build skills that will support this high-level decision making.

In a 2012 *Harvard Business Review* article, Dominic Bart and David Court outlined the prioritization that must take place to get to the decision-making step:

First, companies must be able to identify, combine, and manage multiple sources of data. Second, they need the capability to build advanced analytics models for predicting and optimizing outcomes. Third, and most critical, management must possess the muscle to transform the organization so that the data and models actually yield better decisions. Two important features underpin those activities: a clear strategy for how to use data and analytics to compete, and deployment of the right technology architecture and capabilities.

Companies of all kinds are seeing the value in Big Data for prediction and decision making, which go hand in hand. After all, why predict the future if you don't plan on doing anything about it?

## Key Finding 9

*Corporations see the business and talent-related benefits of Big Data.*

**What business objectives do you anticipate Big Data being able to help your organization with?**



Overall, more than 50% of companies see Big Data as helping improve strategic workforce planning, create more efficient and targeted marketing, and increase sales and profitability, customer satisfaction, and productivity. In other words, departments across the board—and the executive team—see the need for Big Data.

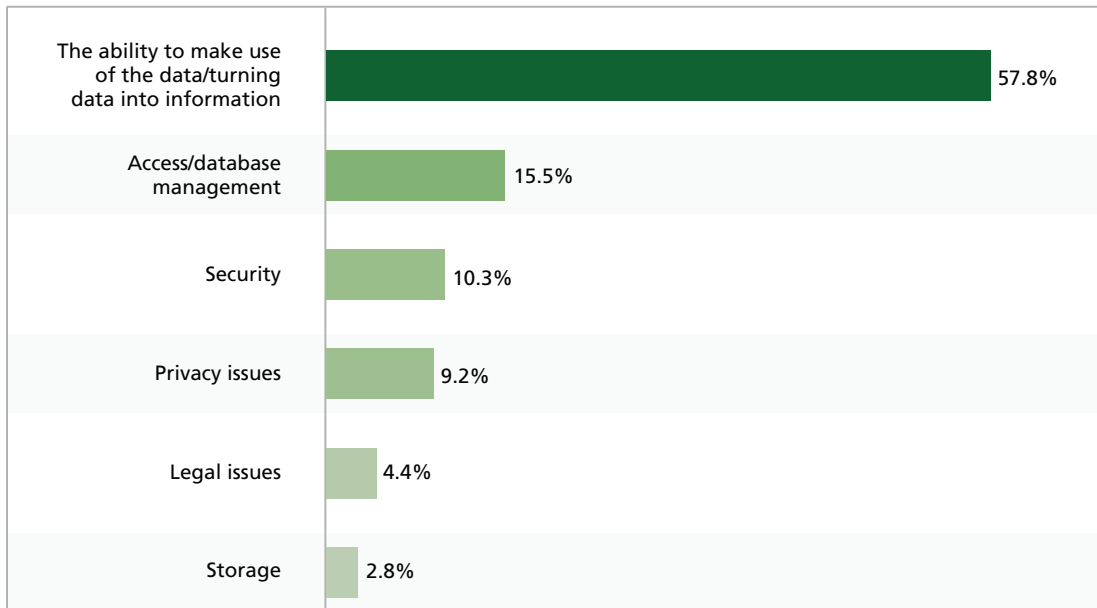
To underscore the importance of this, a 2012 MIT study revealed that companies with higher levels of Big Data and analytics integration were 5 to 6% more productive and profitable than companies with less integration (McAfee and Brynjolfsson, 2012).

Productivity and customer satisfaction are areas that can be objectively measured. Unlike, say, strategic workforce planning, productivity can be determined by easily understandable numbers (e.g., 32 units an hour instead of 30). Those two measures are also directly related to people management, showing that HR’s slow acceptance of an analytical approach is worrisome, since HR departments show the least analytical expertise.

## Key Finding 10

*Turning data into insight is by far the biggest challenge of Big Data.*

**Which of the following problems associated with Big Data concerns you the most?**



Simply stated, a dearth of analytical skills is the biggest roadblock to successful implementation of the use of Big Data in today’s organizations. Specifically, the ability to make sense of these enormous data sets is what separates a good data analyst from a standard number cruncher.

In *Big Data: A Revolution That Will Transform How We Live, Work, and Think*, Cukier and Mayer-Schonberger give the example of Mike Flowers, who was appointed by New York City mayor Michael Bloomberg to be the city’s first Director of Analytics. One of Flowers’ first tasks was to gather the right people to work with him:

Flowers cast his net wide to find the right people. “I had no interest in very experienced statisticians,” he says. “I was a little concerned that they would be reluctant to take this novel approach to problem solving.” Earlier, when he had interviewed traditional stats guys for the financial fraud project, they had tended to raise arcane concerns about mathematical methods. “I wasn’t even thinking about what model I was going to use, I wanted actionable insight, and that was all I cared about,” he says. In the end he picked a team of five people he calls “the kids.” All but one were economics majors just a year or two out of school and without much experience living in a big city, and they all had something a bit creative about them.

The lesson: hardcore statistical abilities are not the same as analytical skills. The real skill is in understanding the data and having the ability to help others understand it.

Again, this reinforces why high levels of analytical skill among executive leadership is a must for building effective analytics use into an organization. Comprehending what the numbers tell you and using that data to make decisions is what separates companies that are highly regarded, profitable, and competitive from those that are not.

## Conclusion

The gap between where organizations say they are in terms of analytical abilities and where they would like to be is great (i4cp, 2012). The next step in taming Big Data is closing that distance by drilling down to where those specific deficiencies are in different workforce segments. It is not sufficient to have analytical ability sequestered within traditional, number-crunching departments. Analytical ability must be strengthened throughout the organization, especially among human resources personnel and within the executive team.

Increasing an organization's analytical capabilities can be done through hiring, but the dearth of qualified data scientists, especially in the human capital field, indicates that training existing staff is the more effective method. However, strengthening analytical ability requires more than just math classes. To be truly effective, a broad understanding of finance, operations, and marketing must be combined with statistical analysis, presentation skills, and a focus on problem solving.

Analytical ability exists somewhere in every company. A common trend, which has been steadily increasing in recent years, is to facilitate lateral department moves to cross-pollinate and spread those skills around, as with HR professionals who started out in operations, marketing managers who started in finance, executives who come from research and development. The linear career path is being morphed into a spiral. People with analytical acumen can be of use in almost any department, granting them a very favorable job outlook in the coming years.

The bottom line is that the need for analytical skills is recognized and growing. As a result, the market for people with these skills is increasingly highly competitive. This should be addressed by rapidly training people within your organization, while shifting the strategic decision-making process to a more analytically based model. These actions are not unrelated. By providing better data on which to base decisions, leaders will be more confident in relying on that data for further decisions. This will only strengthen the cycle.

Unless failure is an option, trends showing greater reliance on Big Data and broader analytics use are not to be ignored. Companies that are successful now, and those that will be successful in the future, know that relying on gut feelings and instinct as a basis for organizational decision making is outdated.

Big Data holds the answers to many vexing concerns, waiting only for the skills needed to ask the right questions and then interpret the information it has to offer. But building the ability to source data is akin to building any kind of literacy, underappreciated until it is in place. Once mastered and integrated, organizations will soon struggle to remember how they made decisions without it.



## Recommendations

This paper explores where companies stand in terms of analytics and the targeted areas where those analytical skills need to grow. It also discusses the future and how companies plan to meet the demands of the 21st century through greater reliance on data for decision making. The table below is an actionable list of lessons learned from today’s market leaders, intended to help direct and prepare organizations for a more analytical workplace.

Recommendation	Action	Benefit
<b>1. Identify analytical needs in your organization</b>		
Determine where the analytical deficiencies are	Survey or assess employees to determine analytic strength by segment	Allows focus on particular segments for hiring or training
<b>2. Build analytical strength</b>		
Train needed employees in analytical abilities	SMEs from within your organization or outside vendors can teach the skills needed	Fosters better understanding of analytical methods and mindsets
Increase analytical skills with strategic hiring	Hire for analytical abilities in leaders at the executive level	Although the pool is limited, even one or two highly analytical leaders can help change the focus for entire departments
Import abilities from other areas of the business	Rotate top analytical strength from marketing, R&D, finance, et cetera, to shore up gaps in less analytically adept departments	Bringing in an analytical mindset can revolutionize how a department functions and evaluates itself
<b>3. Prepare for the advent of Big Data</b>		
Identify deficiencies in technology for processing large data streams	Make sure that your enterprise-wide systems can store the amount of data needed (the more the better), and that it can be easily retrieved	Being able to correlate massive data sets against each other could unearth relationships that were previously hidden
Collect and protect all data	Focus on data security and storage, keep even possibly irrelevant data	Data that may seem irrelevant now may have great use in the future
<b>4. Embrace the analytical decision-making mindset</b>		
Evaluate leaders on their ability to make decisions with data	Make “decision making using data” an explicit part of leadership evaluations and hiring practices	Having explicitly stated values help drive those values to everyone in the organization, resulting in a more analytically focused culture
Use statistical measures to rate leader’s abilities	Create an index of leadership ability based on the team performance of that leader	Using statistical methods to rate leaders reinforces the importance of using data to make decisions at your organization

## Authors and Contributors

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## Demographic Questions

### Primary Industry

Response	Percent
Aerospace & Defense	3.2%
Agriculture	1.6%
Automotive & Transport	2.0%
Banking	1.9%
Beverages	0.9%
Business Services	6.2%
Charitable Organizations	0.7%
Chemicals	1.6%
Computer Hardware	0.3%
Computer Services	1.6%
Computer Software	2.3%
Construction	1.7%
Consumer Products Manufacturers	3.3%
Consumer Services	0.9%
Cultural Institutions	0.3%
Education	7.0%
Electronics	2.1%
Energy & Utilities	3.2%
Environmental Services & Equipment	1.0%

Response	Percent
Financial Services	5.8%
Food	2.1%
Foundations	0.1%
Government	5.1%
Healthcare	8.1%
Industrial Manufacturing	6.5%
Insurance	5.0%
Leisure	0.8%
Media	1.6%
Membership Organizations	2.1%
Metals & Mining	0.8%
Other	9.3%
Pharmaceuticals	2.9%
Real Estate	1.0%
Retail	2.8%
Security Products & Services	0.2%
Telecommunications Equipment	0.2%
Telecommunications Services	1.4%
Transportation Services	2.0%

n=996

### Size of workforce throughout the world

Response	Percent
1 - 24 employees	9.1%
25 - 49 employees	4.2%
50 - 99 employees	6.6%
100 - 249 employees	10.8%
250 - 499 employees	8.5%
500 - 999 employees	7.0%
1,000 - 4,999 employees	17.6%
5,000 - 9,999 employees	7.8%
10,000 - 19,999 employees	6.7%
20,000 - 49,999 employees	7.1%
50,000 - 99,999 employees	5.4%
More than 100,000 employees	9.0%

n=996

**Geographic structure**

Response	Percent
Global (high level of global integration)	33.3%
Multinational (national/regional operations act independently)	19.8%
National (operations in one country only)	46.9%

n=996

**Job level**

Response	Percent
Board Member/Chairperson	0.4%
CEO/President	3.7%
Partner/Owner	2.6%
C-Level Executive	3.2%
EVP/SVP	2.5%
VP	6.9%
Director	27.3%
Manager	40.6%
Supervisor	1.7%
Individual Contributor	9.2%
Other	1.8%

n=996

**Department/function**

Response	Percent
Accounting / Finance	7.2%
Administrative	2.8%
Consulting / Advisory	3.9%
Creative Services	0.1%
Customer Service / Account Management	4.3%
Engineering	2.7%
Executive / Owner	3.2%
Facilities Management	1.8%
General Management	5.3%
Human Resources	17.8%
Information Technology	5.0%
Legal	0.9%
Supply Chain/Logistics	1.4%

Response	Percent
Marketing / Advertising	5.4%
Market Research	1.7%
Not Specified	1.3%
Operations / Production	7.6%
Other	4.6%
Planning	1.4%
Procurement / Sourcing	2.3%
Product Development / Design	1.4%
Public Relations / Communications	0.5%
Quality Control	1.6%
Research & Development (Product-related)	1.6%
Sales / Business Development	6.9%
Training	7.1%

n=996

Please indicate your organization's performance in the following areas:

Category of Performance	Not applicable	At an all-time low	Significantly worse	About the same	Significantly better	At an all-time high
Compared with the past five years, your revenue growth is...	7.6%	1.4%	8.2%	36.4%	37.6%	8.8%
Compared with the past five years, your market share is...	11.5%	1.3%	5.2%	46.4%	29.6%	6.0%
Compared with the past five years, your profitability is...	9.8%	1.0%	9.3%	39.6%	35.6%	4.6%
Compared with the past five years, your customer satisfaction is...	3.5%	1.0%	3.7%	49.1%	36.8%	5.9%

n=867

Generally speaking, how would you gauge your organization's performance?\*

Response	Percent
We're in bad shape	0.0%
We perform at below-average levels	6.2%
We're about average for our industry	30.9%
We're better than average	48.1%
We're in great shape	14.8%

n=867

\*This question was only given to respondents who could not answer at least three categories from the previous question.

**Organization type**

Response	Percent
Government	7.2%
Nonprofit	14.9%
Private (shares are not traded on the stock market)	45.9%
Public (shares are traded on the stock market)	32.0%

n=543

**Total revenue for the entire organization worldwide (in U.S. dollars)**

Response	Percent
\$0 - \$0.99 million	9.8%
\$1 - \$1.99 million	1.3%
\$2 - \$4.99 million	5.2%
\$5 - \$9.99 million	6.3%
\$10 - \$49.99 million	15.0%
\$50 - \$99.99 million	9.8%
\$100 - \$499.99 million	13.0%
\$500 - \$999.99 million	5.0%
\$1 - \$1.99 billion	6.5%
\$2 - \$4.99 billion	8.7%
\$5 - \$9.99 billion	5.4%
\$10+ billion	14.1%

n=461

**Country in which you are located**

Response	Percent
United States	91.6%
Canada	2.1%
Bangladesh	0.2%
Belgium	0.2%
Brazil	0.2%
China, People's Republic of	0.2%
Egypt	0.2%
Philippines	0.2%
Portugal	0.2%
Saudi Arabia	0.2%
Singapore	0.2%
South Africa	0.2%
Sweden	0.2%

Response	Percent
Hong Kong	0.6%
Ireland	0.2%
Italy	0.2%
Malaysia	0.4%
Mexico	0.8%
New Zealand	0.2%
Nigeria	0.4%
Switzerland, Cantons of	0.6%
Taiwan	0.2%
Thailand	0.2%
Turkey	0.2%
Uganda	0.2%
United Kingdom	0.2%

n=525

**Location of company headquarters**

Response	Percent
United States	83.6%
Canada	2.1%
Australia	0.2%
Belgium	0.4%
Belize	0.2%
Brazil	0.2%
Denmark	0.4%
Egypt	0.2%
Finland	0.2%
France	1.1%
Germany	1.9%
Ireland	0.2%
Israel	0.2%
Italy	0.2%
Japan	1.7%

Response	Percent
Malaysia	0.4%
Mexico	0.6%
Netherlands	1.0%
New Zealand	0.2%
Nigeria	0.4%
Philippines	0.2%
Portugal	0.2%
Singapore	0.4%
South Africa	0.2%
Sweden	0.4%
Switzerland, Cantons of	1.7%
Thailand	0.2%
Uganda	0.2%
United Kingdom	1.3%

n=523

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American Management Association (AMA) is a world leader in professional development and performance-based learning solutions.

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