Big Data Executive Survey 2014:

An Update on the Progress of Big Data in the Large Corporate World

Executive Summary

With a Foreword by Thomas H. Davenport

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Foreword | Thomas H. Davenport

In writing the 2013 Big Data Survey foreword, I noted that I was happy to see so much Big Data activity, but I questioned the longevity of the term. Both comments are even more appropriate this year. Big Data has entered the mainstream, with two-thirds of the respondents running a production application. Spending is up, and is expected to increase dramatically. Surveyed executives are bullish on the importance of Big Data to their businesses. Only 3% feel that it's the "same old stuff." Everything is sunny in the world of big data.

Except, its name! Perhaps never has there been such enthusiasm about a business topic, and less satisfaction with the name of it. Fewer than 1 in 5 respondents feel that the name is "apt and descriptive," and the rest dislike it or view it as overstated. This raises the question, of course, whether everyone in the survey -- and in your organization -- means the same thing when they talk about "Big Data." My guess in both cases is that they don't. For many, Big Data has become an encompassing term that has come to mean any analytical application of data. The problem with this all-encompassing usage is that it blurs the lines between big and small data, structured and unstructured data, legacy data and new sources of data, and other valid differences. My suggestion is to exert caution and precision when using the term Big Data within your organization, and use more descriptive language such as, "We're more rapidly and cost-effectively bringing together our traditional legacy data sources." Or, "We're analyzing text converted from call center speech to better understand customer satisfaction."

Given this terminological uncertainty, one wonders what the executives in this survey -- and others around the world -- are really excited about when they express enthusiasm for Big Data (and they are excited; 82% say it's "important or mission critical" to their organizations, 23% say its value is "revolutionary," and 74% believe that its value "warrants serious attention.")

There are a variety of possible targets for such admiration – 22% executives in the survey want to integrate new sources and more varieties of data, 16% want to integrate and manage larger volumes of data, and 4% want to specifically analyze social media or unstructured data. New data types promise to shed new light on almost any business entity, from customer sentiments to supplier relationships.

It could also be that the enthusiasm is aimed at Big Data technologies such as Hadoop, although executives in the survey (4%) minimized the important of choosing and implementing the right technologies as being critical to business adoption. I've noticed in other contexts, however, that even large, established organizations like those in this survey cannot fully resist their siren call.

Not surprisingly given this collection of capabilities, this survey suggests a complicated organizational landscape for Big Data. It's capable of addressing many business problems, so it's reasonable to have multiple constituencies within organizations. Business and IT, CDO and CIO and CAO, Marketing and Finance and R&D -- everybody wants in on this act. On the positive side of this complex matrix, Big Data could usher in a new era of organizational collaboration. Or it could yield a massive amount of confusion and infighting.

Overall, however, this survey suggests a bright future for Big Data. It's clearly not just hype, and it's not just experimental. Companies are getting real value from it in production applications. Now if we could only figure out what to call it!

Thomas H. Davenport is the President's Professor at Babson College and was most recently Visiting Professor at Harvard Business School. He is the author of Competing on Analytics, cited by CIO Magazine as one of the "Top 15 Most Ground Breaking Management Books.", and Big Data at Work, his newest work.

Introduction

NewVantage Partners Big Data executive survey was first conducted in 2012 at the encouragement of Fortune 1000 senior business and technology executives who had participated in NewVantage Partners executive thought-leadership roundtable discussions. These executives were seeking to understand the state of Big Data initiatives among peer institutions.

Survey respondents are Fortune 1000 senior business and technology executives who have a vested interest in the success of an organization's data and analytics, and Big Data, initiatives. Respondents include executives with the following responsibilities:

- Line-of-Business President | Group Executive
- Chief Executive Officer (CEO)
- Chief Operating Officer (COO)
- Chief Financial Officer (CFO)
- Chief Marketing Officer (CMO)
- Chief Information Officer (CIO)
- Chief Data Officer (CDO)
- Chief Technology Officer (CTO)
- Chief Analytics Officer
- Chief Risk or Privacy Officer
- Chief Architect or Chief Scientist
- Head of Big Data for the Enterprise
- Head of Analytics | Informatics
- Senior Business Leader | Executive
- Medical Chief | Medical Information Officer.

Response to the 2014 executive survey has significantly exceeded previous years, which is directly attributable to growing executive and corporate interest in data and analytics, and Big Data in particular, as a critical corporate asset.

As large corporations looks to leverage their information assets, the important of data is increasingly magnified.

Themes and Trends

The 2014 Big Data Executive Survey is the beneficiary of a record number of senior executive respondents. This year, 59 companies participated, with 125 individual executive respondents. Executive participants spanned senior business and technology roles. However, wherever these executives sat within the organization, they shared a common interest and common objective to see their company effectively utilize data and analytics in support of corporate business goals.

"59 companies participated,
with 125 individual executive respondents"

The 2014 survey highlighted some new as well as some familiar themes, most notably:

- Big Data investment is significant and growing
- Big Data initiatives are in production, or fast on the way
- Big Data initiatives are being driven from the top, with senior executive sponsorship and commitment
- The Chief Data Officer (CDO) role is becoming a corporate standard
- Business and technology partnership is growing and critical to Big Data success
- Big Data is being integrated into the mainstream
- Executives are wary of the term Big Data.

NewVantage Partners is pleased to have had this opportunity to learn from and to share these results with the participating companies, and beyond.

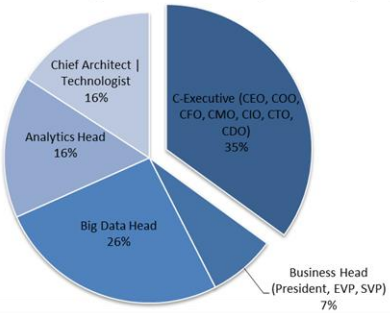
Demographics

Survey participants comprised 59 Fortune 1000 and industry leading companies, and 125 senior executive respondents.

- Participating Companies -- 59
- Executive Respondents -- 125

The breakdown of survey respondents is summarized in Figure 1:

Figure 1:
What best describes your role within your company?

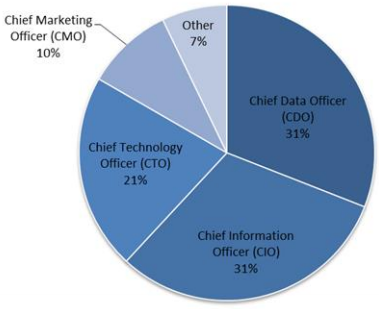


- C-Suite Executives – 35%
  COO | CFO | CMO | CIO | CTO | CDO
- Big Data Function Leader – 26%
- Analytics Leader – 16%
- Chief Architect | Senior Technologist – 16%
- Business Unit Leader – 7%
  President | EVP | SVP

The largest group of respondents comprised C-suite executives, followed by executives with corporate leadership responsibilities for Big Data initiatives within or across the enterprise.

The breakdown of C-Suite executives by role is summarized in Figure 2:

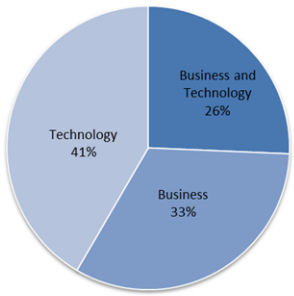
Figure 2:
Breakdown by C-Executive Role



- Chief Data Officer – 31%
- Chief Information Officer – 31%
- Chief Technology Officer – 21%
- Chief Marketing Officer – 10%
- Other C-Executive – 7%

The breakdown of executives by Business or Technology functions is summarized in Figure 3.

Figure 3:
What best describes where you sit within your organization?



- Business – 33%
- Technology – 41%
- Business and Technology – 26%.

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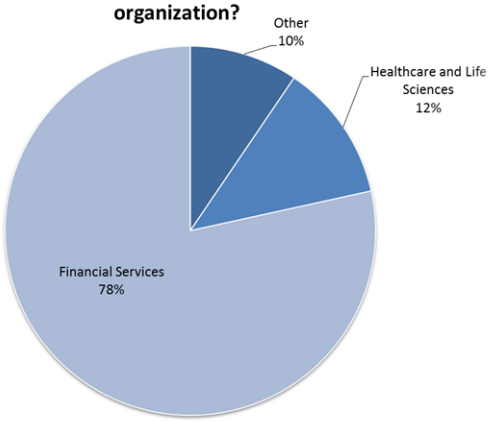
The survey focused on organizations that traditionally make the largest investments in data initiatives, particularly financial services firms, as well as emerging new sectors such as healthcare and life sciences firms, which are making major new investments in data initiatives. Industry representation is summarized in Figure 4:

Figure 4:
In which industry would you characterize your organization?



- Financial Services – 78%
- Healthcare and Life Sciences – 12%
- Other Industries and Sectors – 10%

Participating Companies

Financial Services | Insurance

Aetna
AIG
American Express
Bank of America
Bank of New York Mellon
Barclay's Capital
BB&T Bank
Bridgewater Associates
Capital One
Capital Group
Charles Schwab
Cigna
Citizens Financial
CitiGroup
CLSA | Cruickshank Laing
Fidelity Investments
Freddie Mac
GE Capital
The Hartford
HSBC
JP Morgan
Lincoln Financial
MasterCard
MetLife
Morgan Stanley
New York Life
Northwestern Mutual
Putnam Investments
Raymond James
Regions Bank
Royal Bank of Canada (RBC)
Standard & Poor's
State Street Corporation
SunLife Financial
TD Ameritrade
Thomson Reuters
TIAA-CREF
Travelers
UBS
US Bank
Wellington Financial
Wells Fargo

Health Care | Life Sciences

Alkermes
Astellas
Blue Cross of Rhode Island
CVS | Caremark
Glaxo Smith Klein
Harvard Medical School
Harvard Pilgrim Health Plan
Johnson & Johnson
Kaiser Permanente
Pfizer
Steward Healthcare

Other Industry Sectors

Gannett
General Electric
Raytheon
Time-Warner
TJX Companies

Executive Summary

Big Data and analytics continue on a path of rapid adoption within the corporate mainstream. That is the dominant theme of NewVantage Partners 2014 Big Data Executive Survey.

This report summarizes the principal findings of the 2014 survey, and the dominant trends and themes that emerged.

Executives are invested in Big Data. That senior corporate executives are invested in the success of Big Data is evidenced by the seniority and breadth of participation on this year's executive survey. The participation of 125 senior corporate executives representing 59 Fortune 1000 companies and industry leaders demonstrates the level of commitment to Big Data from the top of the house. The fact that 42% of the participants held positions of C-executive responsibility or were business unit presidents or heads is indicative of the importance and value that corporations believe can be derived from the intelligent use of data and analytics in their business.

"42% of the participants held positions of C-executive responsibility or were business unit presidents or heads"

Big Data is becoming Mainstream. Leading corporations are making serious commitments to their Big Data and analytics initiatives. 67% of executives now report that they have Big Data initiatives running in production within the corporation. Investment in Big Data is increasing dramatically. Executives report that their corporate investments in Big Data are projected to grow from 35% to 75% by 2017 for investments greater than $10MM, and by an astounding 6% to 28% for investments greater than $50MM. 82% view Big Data as being highly important or mission-critical within their organizations, and 82% indicated that Big Data has been integrated into the business and technology mainstream.

"Investments in Big Data are projected to grow from 35% to 75% by 2017 for investments greater than $10MM, and by an astounding 6% to 28% for investments greater than $50MM."

Business-IT Partnership is Key to Big Data Adoption. Executives were in strong agreement that business-IT partnership is essential to the success of corporate Big Data initiatives. 88% of executives cited the importance of a strong business-IT partnership, with 77% citing business leadership and sponsorship, and partnership and organizational alignment as being the most critical factors in ensuring successful adoption of Big Data initiatives within the corporation. Executives report that Big Data sponsorship starts at the top of the house, with 37% reporting that the primary executive sponsor is the CEO, COO, or business President.

"88% of executives cited the importance of a strong business-IT partnership"

The Chief Data Officer is an Emerging Role. 43% of executives report that their organization has established a Chief Data Officer (CDO) function. This represents a dramatic jump from 2012, when only 19% of executives reported that their organization had established a CDO role, and from 2013 where the number had grown only slightly to 26%. Corporations are recognizing that data is a critical corporate asset and are grappling with how best to organize and manage to support Big Data and analytics initiatives

Big Data is a Business issue. Executives see Big Data as providing significant business benefits – greater insight and learning, the ability to obtain answers and make decisions faster and in a more informed manner, greater agility and flexibility. Only 4% see technology selection as being critical to successful Big Data adoption.

About NewVantage Partners

Decades before the advent of "Big Data," a body of business leaders, technologists, and academic thinkers were engaged by the prospect of helping companies leverage their information assets to gain insights that would lead to more data-informed business decisions.

Founded in 2001, NewVantage Partners provides expertise and guidance to Fortune 1000 business and technology executives who are seeking to leverage Data and Analytics to gain business insights, derive business value, transform critical business processes, and ensure successful business adoption and results.

NewVantage Partners is based in Boston with offices in New York and San Francisco.

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