

Big Data Has Been a Big Success
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With every new technology and management trend, it's important to ask after a few years whether it's working. Some, like business process reengineering and Bitcoin, didn't have a successful first few years. Others, like smartphones and ERP, have been successful enough to prosper over the years.

The fifth annual [Big Data Executive Survey](#) from NewVantage Partners found that most big data initiatives have been successful. Big data was defined broadly for the survey as approaches that enable organizations to analyze any and all data with greater speed and agility. Data sets may be large or small, legacy sources or new sources, structured or unstructured data. In the survey, which involved business and technology leaders from 50 leading companies, 48.4% of the respondents said that their firms have achieved "measurable results" from their big data investments. A higher percentage, 80.7%, felt that their big data initiatives have been successful. Only 1.6% said their efforts were a failure; for some it's still too early to tell.

This is great news. Big data programs aren't cheap—37% reported that their organization has invested more than \$100MM on big data initiatives, and 6.5% spent over \$1B—so it's wonderful that they are paying off. Big data has been fairly high on the hype-o-meter, so it's also good to see that there is real substance from it. The companies in the survey are generally early adopters of new technologies (95% said they'd undertaken a big data initiative over the past five years) so it bodes well for smaller and more conservative firms that the early work on big data is going well. They (mostly financial services giants) are heavy users of data, and at the forefront of adoption when it comes to experimenting with data and analytics capabilities – through Centers of Excellence, Big Data Labs, Analytic Sandboxes, and the like.

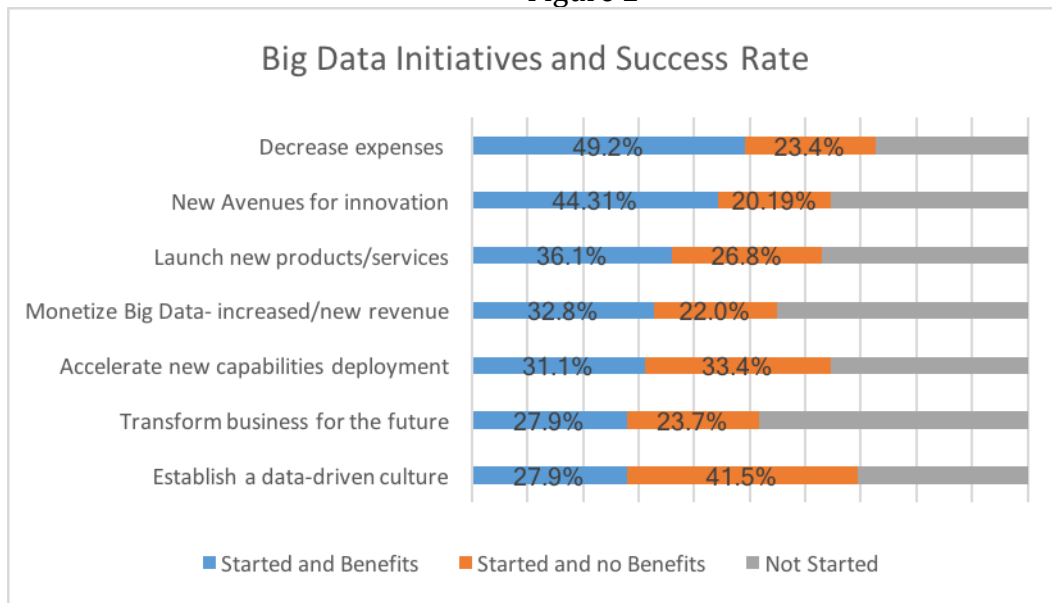
This doesn't mean, of course, that firms haven't encountered some obstacles along the way. The primary impediment to big data progress seems not to be hardware or software, but "wetware"—human and organizational factors (Figure 1). 43% mentioned "lack of organizational alignment" as an impediment. 41% pointed specifically to middle management as the culprit; the same percentage faulted "business resistance or lack of understanding." 29.5% said their organizations lacked a coherent data strategy. 86% say their companies have tried to create a data-driven culture, but only 37% say they've been successful at it.

Figure 1 Cultural Impediments to Big Data Business Adoption	
Insufficient organizational alignment	42.6%

Lack of middle management adoption and understanding	41.0%
Business resistance or lack of understanding	41.0%
Lack of a coherent data strategy	29.5%
Technology resistance or lack of understanding	27.9%
Inability to create a shared vision	26.2%
Lack of data governance policies and practices	21.3%

And some objectives have been more likely to be achieved than others (Figure 2). Not surprisingly, cost reduction projects are the most likely both to have been started (73%) and successfully achieved (49%). Other objectives included “creating new avenues for innovation and disruption” (65% started, 44% successful), speeding up new capabilities and services (65% and 31%), and launching new products and services (63% and 36%). Perhaps the most ambitious objectives involve monetizing big data (55% and 33%) and generally transforming the business (52% and 28%). We are actually amazed that even these highly ambitious objectives have been achieved by a third and a quarter of the firms responding.

Figure 2



The survey also provides a bit of sobering context about the big data efforts of big companies, and a sense of what might be coming next. Most of these executives clearly feel that some big bets and transformational outcomes are necessary, because 47% feel that major disruption is coming to their industries over the next decade. Large financial services firms were particularly concerned about disruption—presumably from “fintech” firms and startups--as well as large established firms like Google, Amazon, and other big data leaders.

What will follow big data as a disruptive technology? Signs point to cognitive technologies. 44% said the technology would impact their firm over the next decade, and 69% of those had already begun working with cognitive. Digital (mobile/social/Internet of Things) technologies were rated second most disruptive, but 78% said they were already working on them. Fintech was highly ranked as a disruptive force by financial firms, but obviously less so by those in other industries.

So this is no time for even the most sophisticated firm to rest on its big data laurels. New technologies and new ways of using them in business will undoubtedly emerge. But it's nice to know that at least one set of technologies appears to have paid off for its users.

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