The Economist Intelligence Unit

A report from the Economist Intelligence Unit

Views from the C-suite

Who's big on BIG DATA?

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Executive summary

The way that big data pervades most organisations today creates a dynamic environment for C-level executives to explore how it can and should be used strategically to add business value. While each C-level executive views big data through a unique lens, a strong consensus exists among them about the need for effective big data analytics across their organisations.

The EIU survey shows that senior executives are optimistic about both the capabilities of big data and the impacts such data can have on their businesses. They display a clear understanding of big data's potential, with the majority admitting that they would like to achieve deeper knowledge of the underlying data-related technologies. This need for better understanding will only grow as the application of big data across a wide array of corporate activities increases beyond customer-facing functions.

While executives at the helm of organisations recognise the growing importance of big data, they still struggle with its proper application. An important question remains: Whose responsibility is it to manage this growing suite of big-data applications? According to our survey: everyone's. Disagreement arises, however, about who exactly should lead the charge. CEOs understand the strategic importance of big data, but they admit their knowledge of its applications is limited. And a majority of executives across all functions believe that big-data applications are too large to be left to those who have the most understanding of these applications: CIOs. The CMOs are also well-versed in big data but not its application across other functions. Like the CMOs, CFOs are eager consumers of big data, but they are not savvy about big data's use outside finance.

As a result, big data today tends to be siloed within organisational departments. The survey indicates, however, that executives realise that it should be a shared responsibility, one that is coordinated across the enterprise. A large proportion of respondents say that big data can enhance the strategic role of their function, and

About the survey?

In September 2014, The Economist Intelligence Unit (EIU) carried out a global survey of 395 C-level executives with sponsorship from Platfora. The survey sample consists of executives from 18 different industries and is balanced across Asia-Pacific (34%), North America (27%), Western Europe (26%) and the rest of the world (13%). About half of respondents' organisations have annual revenue of more than $500m, of which one-in-five report more than $5bn in revenue.

they see the creation of enterprise-wide big-data teams as the most effective strategy for realising maximum value.

Here we explore in more detail the different C-suite beliefs, priorities and opinions on the subject of big-data analytics gleaned from the EIU survey:

Finding 1: Executives' attitudes towards big data are overwhelmingly positive

A great majority of executives agree that big data has a substantial role to play in their organisation's future. Nearly half (48%) believe big data to be a useful tool, while another 23% say big data will revolutionise the way businesses are managed. More than one-in-five (21%) consider big data essential to managing increasing information flow. (See Chart 1)

CEOs have the most positive overall attitudes about big data according to survey respondents, with 76% rating their CEO's views as positive or very positive on the subject, closely followed by CIOs (72%) and CMOs (67%). (See Chart 2)

This generally positive outlook is not limited to any single business challenge. When asked how effectively big-data analytics could help to guide strategic decisions, increasing sales receives the highest ratings with 84%. But a great many also point to other key strategic challenges—including improving efficiency (78%) and building customer loyalty (73%). Even the lowest-rated challenge, minimising costs, is seen as a good candidate for big-data analytics by two-thirds (67%) of executives.

Chart 1. **Which of the following statements most closely describe your view of the future of big data?**
% of respondents

Source: Economist Intelligence Unit survey, September, 2014.

Chart 2. **What is the overall attitude towards big data among your C-level colleagues?**
% of respondents who selected "positive" or "very positive"

Source: Economist Intelligence Unit survey, September, 2014.

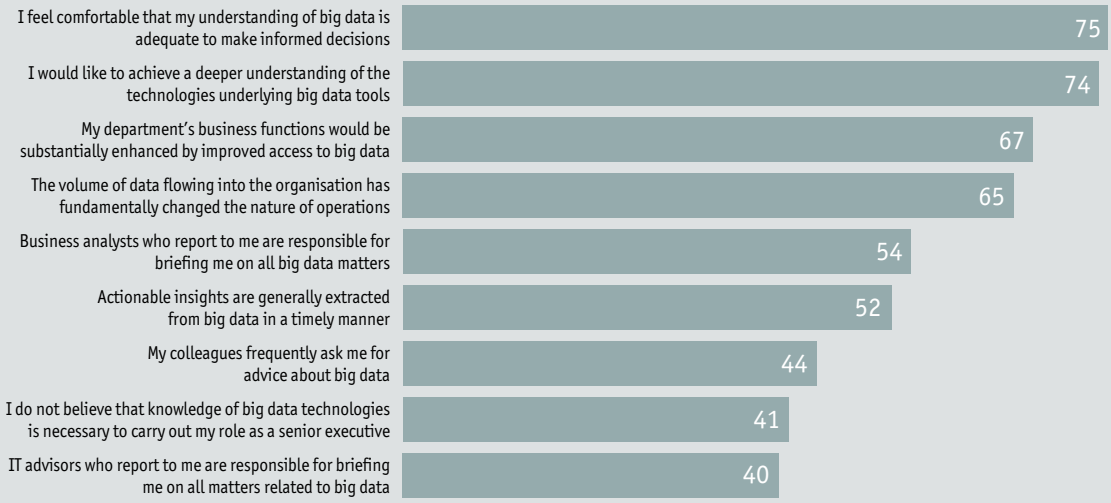
Finding 2: Executives agree on the need for big-data solutions and want to know more

C-level executives clearly articulate the potential of big-data capabilities and demonstrate high levels of confidence about their personal ability to implement big-data tools in their roles as senior executives. Still, about three-quarters state that they would like to achieve a deeper understanding of the technologies underlying big-data tools, with more than half acknowledging the importance of that understanding to be successful in their positions. (See Chart 3)

This perceived knowledge gap seems to pervade organisations. A significant 42% agree that senior executives lack understanding of big-data applications to the business. About 62% feel that senior management is enthusiastic about the potential applications without necessarily understanding the technical aspects.

Chart 3. **Which of the following statements do you agree or disagree with concerning your personal knowledge of big data technologies and tools?**

% of respondents who agree



Source: Economist Intelligence Unit survey, September, 2014.

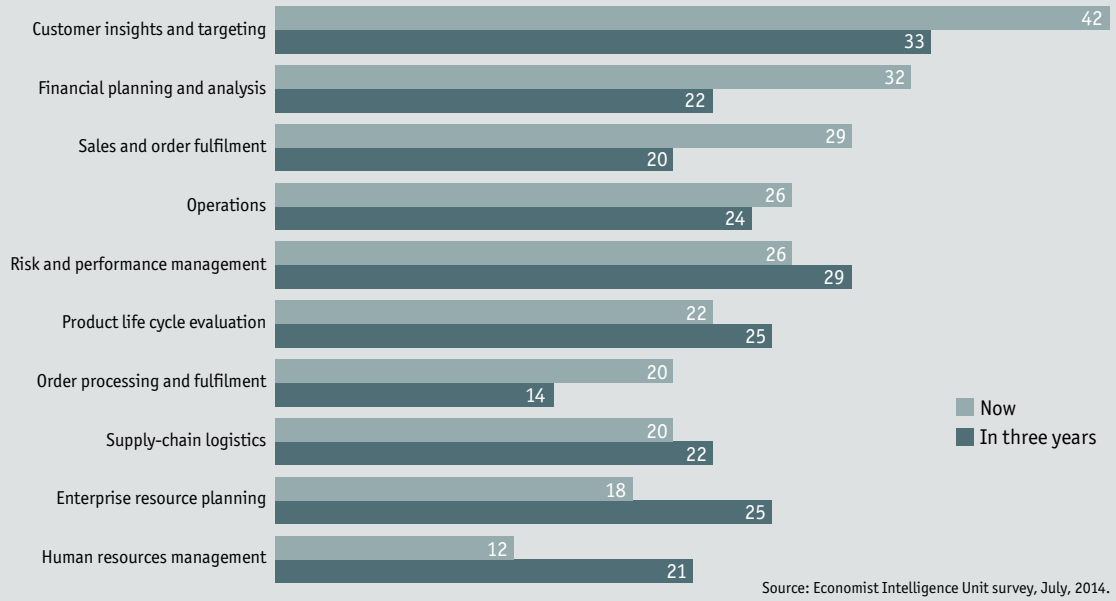
Finding 3: Customer processes currently stand out as candidates for big-data analytics

Customer insights and targeting are currently the highest priority for the application of big data—cited by 42% of the C-level executives, followed by financial planning with 32% and sales (29%). The several other priorities that rank lower do suggest broad opportunities for big-data solutions enterprise-wide. These priorities will become even harder to differentiate over the next three years, although customer insights and targeting will remain the top priority, it will drop in relative terms as several others emerge. (See Chart 4)

Customer analysis also leads when it comes to determining data sources that are most effectively managed using data tools, with customer information at the top (42%), followed by sales transactions data (37%). Customer behaviour analytics applications (46%) are most frequently identified as very effectively managed by big data.

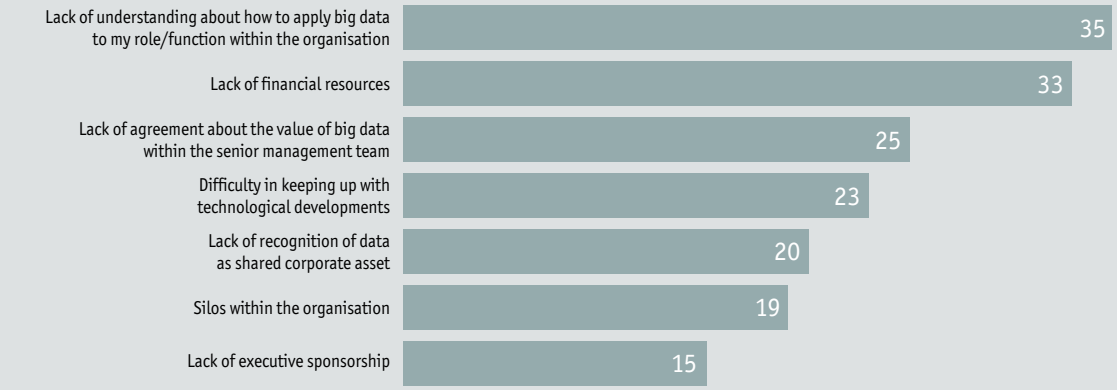
Chart 4. **Which of the following business processes do you believe are the most important priorities for the application of big data now, and which will be most important in three years?**

% of respondents



Source: Economist Intelligence Unit survey, July, 2014.

Chart 5. **Which of the following are the most important internal obstacles to the more extensive use of big data in your organisation?**
% of respondents



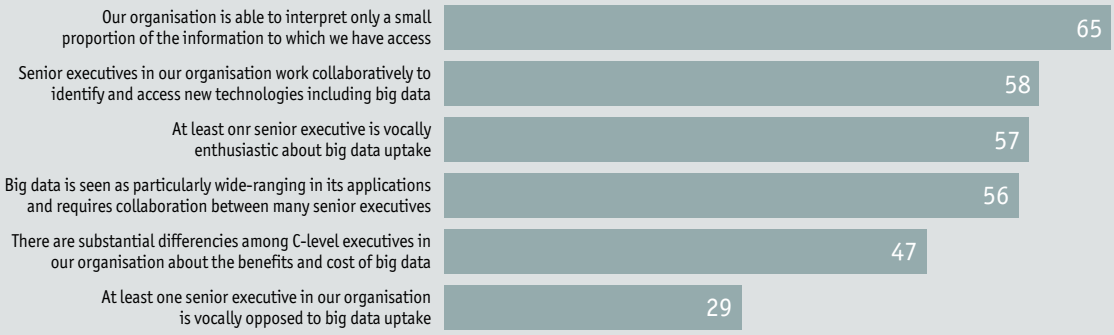
Source: Economist Intelligence Unit survey, September, 2014.

Finding 4: Lack of understanding about how to use big data stands in the way of implementation

Executives acknowledge personal lack of understanding about how big data applies to their specific functions as the top obstacle to a more extensive use of big data. This lack of understanding, cited by 35 of repondents, stands out amid other factors with relatively low individual totals—a consequence of the respondents selecting up to two factors among many competing variables. (See Chart 5)

A peer evaluation supports this finding: a significant portion (41%) of CIOs says that other executives do not understand big data sufficiently to make realistic proposals and requests. In turn, more than one-third of CMOs and CFOs still don´t believe that CIOs understand the importance of big-data analytics to their specific functions.

Chart 6. **As CEO, do you agree or disagree with the following statements about the use of big data in your organisation?**
% of CEO's who agree



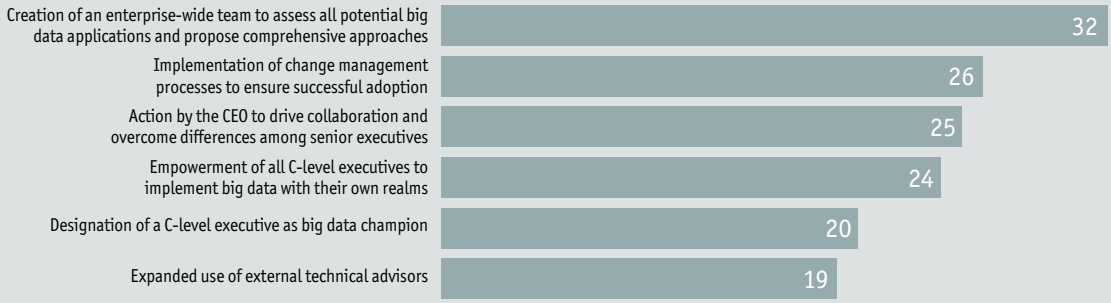
Source: Economist Intelligence Unit survey, September, 2014.

Finding 5: Implementation is also held back by lack of agreement about the value of big data

Besides the ever-present lack of financial resources, lack of agreement about the value of big data stands in the way of more extensive use of big data. One-quarter of executives indicate that this issue affects their senior management team.

Separately targeted questions for each major C-level function provide deeper insights. A majority of the CEOs (56%) (See Chart 6) say that big data requires collaboration among the different senior executives. More than two-thirds of CMOs (68%) and CFOs (64%) believe that big data applications to their specific functions are too big to be left to CIOs alone. For their part, 62% of CIOs say that the buzz surrounding big data causes some C-suite colleagues to hold unrealistic expectations. This perception gap suggests a fairly complex relationship that may interfere with the ability of senior executives to work collaboratively on issues concerning big data.

Chart 7. **Which of the following strategies would be most effective in obtaining optimum value from big data tools?**
% of respondents



Source: Economist Intelligence Unit survey, September, 2014.

Chart 8. **Which of the following statements best describes how your organisation addresses the human aspect of big data?**
% of respondents

Note: percentages are stated excluding respondents with no experience. Source: Economist Intelligence Unit survey, September, 2014.

Finding 6: Optimal value from big data comes from the creation of enterprise-wide big-data teams

The most effective strategy for obtaining optimal value from big-data tools, according to about one-third of executives, would be the creation of an enterprise-wide team promoting comprehensive approaches (32%) (See Chart 7). This emphasis on enterprise-wide approaches is aligned with other findings showing that applying advanced analytics to more business processes is a top strategic priority.

There is a need for strong leadership by top executives to bring about a cultural shift that fosters big-data implementation. Top strategies include action by the CEO to drive collaboration and overcome differences among senior executives and empowerment of all C-level executives to implement big data within their own realms. That only 58% of CEOs agree that their senior executives are currently working collaboratively to identify and assess new technologies—including big data—indicates that this is still a work in progress.

Finding 7: Specialised technical skills are needed to optimise use of big data, but in a supportive role

The expanded use of technical advisors is the least popular strategy for obtaining optimal value from big-data tools (19%). Executives don't seek to turn key business processes over to technical specialists, such as data scientists. They are clear that they see specialised skills as playing supportive roles in the decision-making process.

Excluding respondents who say they have no experience with the human aspects of big data, about 28% acknowledge that specialised skills are needed, but more than one-third (34%) say these skills should be applied behind the scenes. Moreover, a significant 26% say that well-designed applications make it practical for executives to interpret big data themselves. (See Chart 8)

Conclusion

Companies today want to be guided by data. They can already identify a number of disparate areas where data analytics can be leveraged to drive business value and contribute to the bottom line.

So what's next? Culture. A lack of proper understanding and buy-in, not only by the decision-makers but throughout the organisation, can stand in the way of the integration and optimal use of big data. Our survey shows that disagreement exists among the top leadership about who should be leading big-data adoption. Furthermore, many in the organisation don't trust that senior management maintains the necessary understanding of big data's technical aspects. This lack of clear leadership, but a united optimistic outlook for big data's application, highlights that the time is right for companies to move beyond just wanting to be a data-driven organisation to making sure that the use of big-data analytics is fully integrated into the corporate culture.

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