INFORMED DECISION MAKING: YOU SHOULD BE GETTING MORE VALUE FROM YOUR DATA

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Author: Derek E. Brink, CISSP
Vice President and Research Fellow, Information Security and IT GRC

Report Highlights

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The biggest challenges for making well-informed, data-driven business decisions, as identified by the respondents in Aberdeen Group's benchmark research, are difficulty accessing the data they need, when they need it, with good quality and completeness.

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The obvious opportunity for improvement in these important capabilities is highlighted by a simple Net Satisfaction Index, for which +50% is considered very good: data timeliness (+4%); data access (-17%); data accuracy and completeness (+13%); ability to analyze (-4%).

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The shocking gap in well-informed decision-making: Aberdeen's analysis reveals that your enterprise decision-makers rarely have access to the data they need, when they need it, with high quality and completeness. They get it between just 13% and 47% of the time, with a median likelihood of only 29%.

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Aberdeen's research findings and analysis substantiate the need for enterprises to invest in the means for better access, timeliness, accuracy, and completeness of the data required to inform their critical decision-making.

Modern enterprises are too connected and fast-paced for important business decisions to be made strictly on intuition and gut feel. For better-informed decision-making, your organization's decision-makers need timely access to information they can rely on. Aberdeen Group's research findings and analysis substantiate the need for enterprises to take a fresh look at their current initiatives for getting more value from their data, and to proactively investigate the available options, from metadata management to data intelligence.
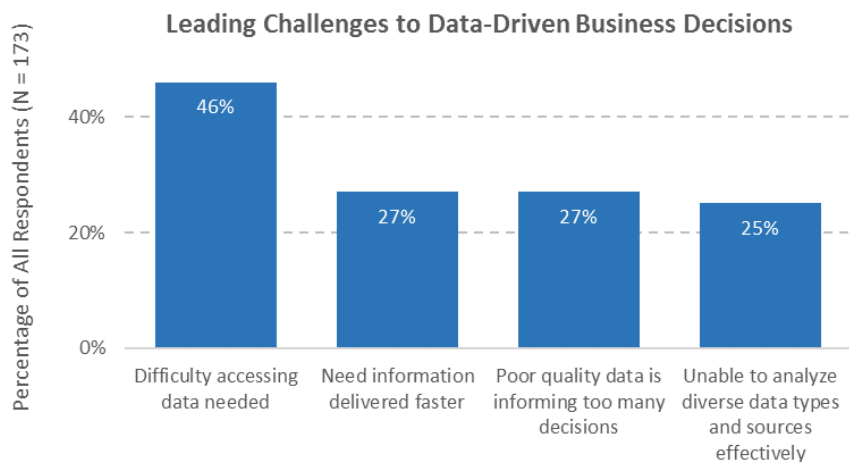
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Business Context: Decision-Making by Intuition and Gut Feel

Ironically, the most strategic business decisions are often based not on data-driven intelligence, but on the judgment calls of *HIPPOs* — the highest-paid people in the organization. In large part, these individuals became HIPPOs in the first place because their intuition has tended to work out over the course of their professional careers.

This approach may have sufficed in simpler, slower-moving times. But modern enterprises are too connected and fast-paced for important business decisions to be made strictly on gut feel. For better-informed decision-making, your organization's decision-makers need **timely access** to **information they can rely on**. Unfortunately, these are precisely the biggest challenges for making data-driven business decisions, as identified by the respondents in Aberdeen's benchmark research. Difficulty *accessing* the data they need, *when* they need it, with high *quality* and *completeness*, are the leading challenges to making well-informed, data-driven business decisions (Figure 1).

Figure 1: Decision-Makers Need Timely Access to Reliable Data

Leading Challenges to Data-Driven Business Decisions

Source: Aberdeen Group, February 2017

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Net Promoter Score

The Net Promoter Score is widely used by marketers and business leaders as a measure of the willingness of a company's customers to recommend its products or services to others.

Accessing **the data they need** — accurate, complete, and from potentially diverse sources — **when they need it** are prerequisites to informed decision-making. Unfortunately, Aberdeen's research confirms that companies are less than satisfied with their current capabilities in these areas.

Based on responses to questions about their satisfaction with their organization's current capabilities, using a scale of 1 (very dissatisfied) to 5 (very satisfied), Aberdeen created a "Net Satisfaction Index" — modeled after the well-known *Net Promoter Score*. The Net Satisfaction Index ranges from -100% (everyone is dissatisfied) to +100% (everyone is satisfied). In general, a score of +50% is considered very good. The results, which are also shown graphically in Figure 2, highlight the obvious opportunity for improvement in these important matters:

➔ Data access: -17%   ➔ Data quality: +13%

➔ Data timeliness: +4%   ➔ Ability to analyze: -4%
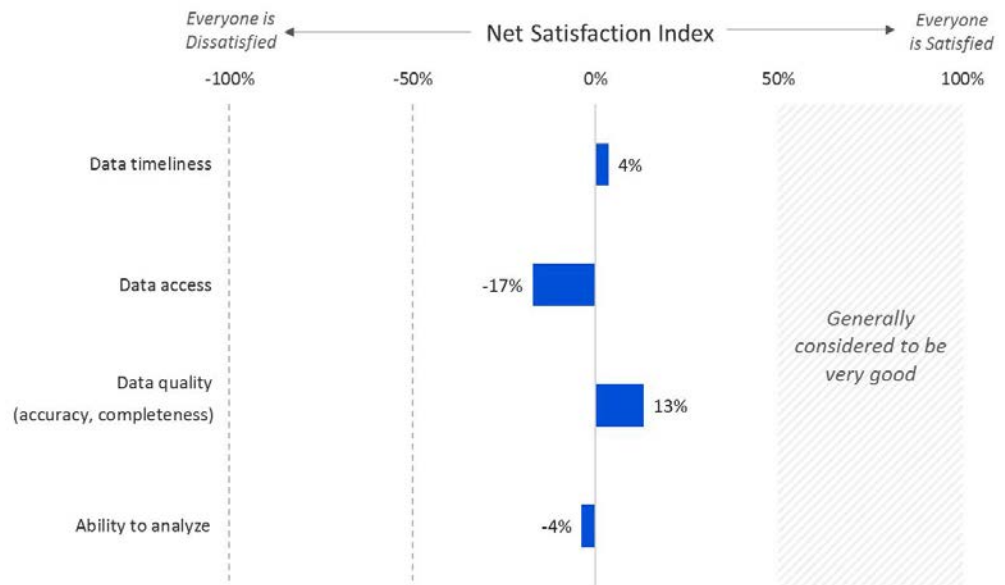
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Monte Carlo Analysis and Risk

In a **Monte Carlo** analysis, each variable in a calculation is expressed not as a single, static value — but as a *range* (lower bound, upper bound) and a *shape* (probability distribution). The relevant calculations are then carried out based on a randomly selected value from the probability distribution for each variable, over many (say, 10,000) independent iterations.

In doing so, the results of the analysis are also expressed as a range and distribution (as opposed to as a single, static value). The results can then be represented in terms of both *how likely* and *how much* — i.e., in terms of **risk**, as risk is properly defined.

This provides risk professionals with exactly what they need to quantify estimates that are useful for **informing a better business decision**, despite the inherent **uncertainties** in these matters.

For example, Aberdeen's simple Monte Carlo analysis shows that the likelihood of enterprise decision-makers having **more than half of the data intelligence they need** to make a well-informed business decision is **less than 10%**. Some organizations may elect to accept and continue with this status quo — while others will choose to improve their decision-making capabilities by investing in data intelligence.

Figure 2: Companies are Less than Satisfied with Their Current Capabilities for Informed Decision-Making: Net Satisfaction Index

Source: Aberdeen Group, February 2017

Why It Matters: How These Challenges Affect Business Decisions

The current challenges with data-driven intelligence are clear enough – but how do they affect the ability for enterprises to make sound, well-informed business decisions?

It's reasonable to assume that the best business decisions are much more likely to be enabled when people have the data they need, when they need it, with high quality and completeness. Similarly, it's also reasonable to assume that business decisions are much more likely to be suboptimal when the data they need is unavailable, inaccurate, incomplete, or untimely.

To put some quantification around these issues, Aberdeen has created a simple *Monte Carlo* analysis that leverages the empirical findings of its benchmark research to model an *upper bound*, *lower bound*, and *distribution* (shape) — as opposed to a single, static value — for each of the following factors:

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➔ **Access to data** (% of time that enterprise decision-makers can access the information they need): *median = 69%*

➔ **Timeliness of data** (% of time that information is available to decision-makers in the timeframe needed to make decisions): *median = 69%*

➔ **Accuracy of data** (% of enterprise data records that are accurate): *median = 84%*

➔ **Completeness of data** (% of enterprise data records that are complete): *median = 85%*

Keep in mind, *median* means it's less than this, 50% of the time. For the purposes of this analysis, if your organization's people have access to 100% of the data they need — 100% on time, 100% accurate, and 100% complete – then they have a 100% likelihood of making fully-informed business decision. Similarly, when none of these characteristics are present, they have a 0% likelihood of making a fully-informed business decision: it's back to gut feel.
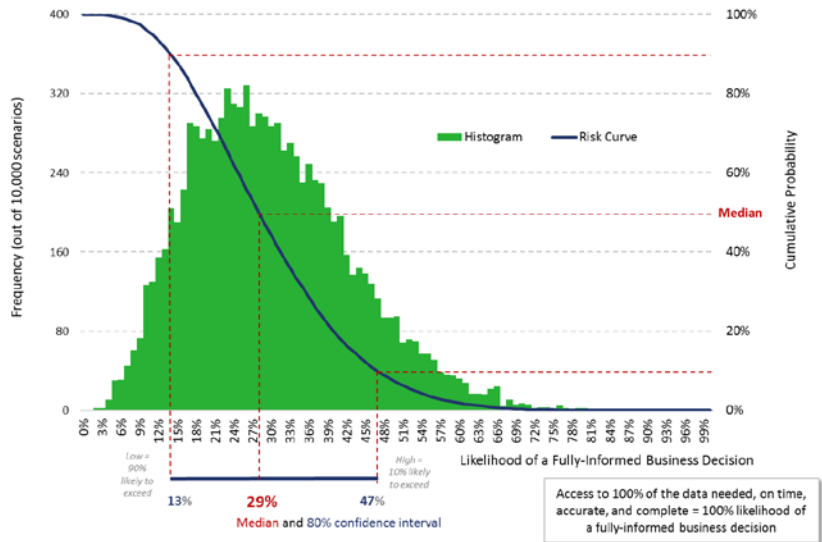
The analysis itself is straightforward:

➔ Use the empirical responses from the 173 organizations participating in Aberdeen's benchmark study to estimate the ranges and distributions for these four factors

➔ Multiply the four factors together, as a measure of having all four of the elements necessary for a well-informed business decision

➔ Do this calculation over 10,000 independent scenarios

➔ Gain insights into the current state of informed decision-making, from the histogram of results as shown in Figure 3

The shocking gap in well-informed decision-making: Aberdeen's analysis reveals that your enterprise decision-makers rarely have access to the data they need, when they need it, with high quality and completeness. They get it between just 13% and 47% of the time, with a median likelihood of only 29%.

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Aberdeen's simple analysis yields the following somewhat shocking results: Enterprise decision-makers have access to the data they need, when they need it, with high quality and completeness, between just 13% and 47% of the time, with a median likelihood of only 29%.

Figure 3: The Shocking Gap in Informed Decision-Making — The Median Likelihood That People Have the Data They Need, When They Need It, With High Quality and Completeness, is Just 29%

Source: Monte Carlo analysis based on empirical data (N =173);
Aberdeen Group, February 2017

How Companies Are Getting More Value from Their Data

Aberdeen's research findings and analysis substantiate the need for enterprises to invest in the means for better access, timeliness, accuracy, and completeness of data required to inform their critical decision-making.

Some examples of solution categories that are designed to enhance these critical capabilities include:

Aberdeen's research findings and analysis substantiate the need for enterprises to invest in the means for better access, timeliness, accuracy, and completeness of data required to inform their critical decision making. Organizations should take a fresh look at their current initiatives for getting more value from their data, and proactively investigate the available options, from metadata management to data intelligence.

➔ **Metadata management** — by leveraging *metadata* (i.e., data that defines and describes other data), enterprises can discover their data resources, and find the data relevant to the purpose at hand.

➔ **Business intelligence** — by analyzing data resources using *descriptive statistics*, enterprises can quantitatively describe and summarize a given dataset (e.g., measure values, display trends) for insights and decision-making about business processes.

➔ **Big data** — by analyzing large, complex data resources using *inductive statistics* (e.g., regressions, probability-based inferences), enterprises can develop insights based on statistical relationships and dependencies, and make predictions about future behaviors and outcomes of business processes.

➔ **Enterprise content management** — by capturing and integrating *unstructured data* (i.e., files) into the organization's business processes and workflows, enterprises can transform the way their users work and collaborate.

➔ **Data intelligence** — by analyzing metadata and multiple other types of data, enterprises can gain insights into which data is critical, track data quality and lineage, focus on the data quality that matters to decision-making, and monitor to see that it's improving, as well as identify data-related issues that are impacting the business. Data intelligence helps enterprises to respond, quickly and accurately, to evolving business opportunities and changing regulatory requirements.

Organizations should take a fresh look at their current initiatives for getting more value from their data, and proactively investigate the available options.

Summary and Key Takeaways

➔ For better-informed decision-making, enterprise decision-makers need **timely access** to **information they can rely on**.

➔ Accessing **the data they need** — *accurate*, *complete*, and from potentially *diverse sources* — **when they need it** are prerequisites to informed decision-making. Unfortunately, Aberdeen's research confirms that companies are less than satisfied with their current capabilities in these areas.

➔ Aberdeen's analysis shows that enterprise decision-makers have access to the data they need, when they need it, with high quality and completeness, **between just 13% and 47% of the time**, with a **median likelihood of only 29%**. The likelihood of enterprise decision-makers having **more than half** of the data intelligence they need to make well-informed business decisions is **less than 10%**.

➔ Aberdeen's research findings and analysis **substantiate the need for enterprises to invest** in the means for better access, timeliness, accuracy, and completeness of the data required to inform their critical decision-making. Organizations should take a fresh look at their current initiatives for getting more value from their data, and proactively investigate the available options, from metadata management to data intelligence.

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Author: Derek E. Brink, CISSP, Vice President and
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