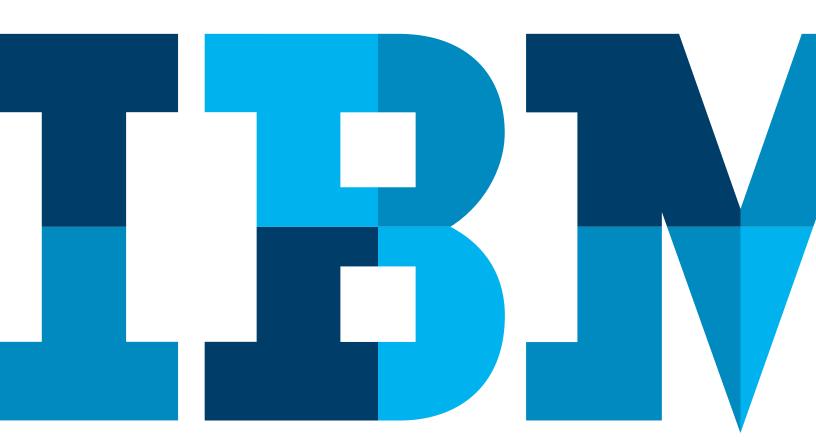# Better Business Outcomes with Business Analytics

Why analytics-driven organizations increasingly outperform their peers

IBM

Contents

New demands for better business outcomes

The responsibility of managers and knowledge workers is to deliver better business outcomes: higher revenue, lower costs and reduced risk.

On the surface, the desired outcomes are not new; they have been core concerns since money first changed hands.

But though the desired outcomes have stayed the same, nearly everything else has changed. Today, organizations must achieve their goals within a fierce and unforgiving economic environment. While fighting to sustain profitability, they must be responsive both to their customers, who demand higher levels of service, and to shareholders and regulators, who demand greater transparency—and have no tolerance for unmanaged risk.

The "new normal"
The current environment is substantially more volatile, less certain and more complex than in years past. More than ever before, events, threats and opportunities converge and influence each other to create entirely unique situations. The stability of former "normal" periods seems to have vanished. The "new normal" is characterized by dramatic, disruptive and swift change. No organization has been unaffected.

One recent development, for example, is the emergence of a much stronger customer "voice." This radically changes the dynamic between buyers and sellers, and between governments and their citizens.

The pressure is on

Leaders have discovered that some of the assumptions and methods they relied on are no longer sustainable. This puts enormous pressure on managers and knowledge workers to optimize business outcomes, and to do so at the point of impact—for instance, when deciding whether to extend credit to a supplier, or which offer a customer on the phone should receive, or what related products or services should be shown during an online interaction.

Finance is under pressure to govern access to sensitive financial data and foster more dynamic performance management processes, ensure compliance, eliminate undue risk and drive lower costs across operations, while ensuring that other business managers have the information needed for decision making.

IT is under pressure to drive cost-effective, on-time deployments that are reliable and scale as user demands grow. Another trend, the so-called "consumerization of IT," means that clients expect the easy-to-use technologies they have available for personal use to be provided in the workplace so that they can instantly locate the insights needed for decision making.

Organizations must strike a balance between business managers' need for freedom and flexibility, on one side, and IT and Finance departments' need for cost control, security and secure governance, risk and compliance.

"Nearly eight out of ten CEOs anticipate significant complexity ahead, but fewer than half feel prepared to handle it."

— IBM Global 2010 CEO Study

Complicating all this is the emergence of "big data." With more and more devices becoming instrumented and interconnected, huge volumes of data are being generated. This data lives not only within an organization's transactional, production, financial and customer relationship management systems but also outside its firewall—in industry and economic statistics, news reports and, of course, in social media.

IBM offers the broadest platform for big data, addressing all three dimensions of this challenge—the volume, variety and velocity of data. The organizations that can generate usable insights from big data guarantee a clear competitive advantage.

So how can your organization best discover and use those insights? Through business analytics.

Why business analytics?

In recent years, business leaders have identified business analytics as a strategic priority. For example, when IBM asked more than 2,500 CIOs from 78 countries, 19 industries and organizations of all sizes participating in its 2010 Global CIO Survey to identify one or more of their visionary plans for enhancing their competitiveness, 83 percent answered "business intelligence and analytics."[1]

And this trend is accelerating: In the 2011 study, *Analytics: The widening divide*, the *MIT Sloan Management Review* and the IBM Institute for Business Value found a 57 percent increase—in a single year—in the number of organizations reporting that they apply analytics to create a competitive advantage.[2]

Business analytics is the ability to take vastly enhanced and expanded data sources and discover in them insights that drive action and deliver better business outcomes.

The *MIT Sloan Management Review* study highlighted the benefits of applying analytics. Analytically sophisticated organizations were 2.2 times more likely to outperform industry peers than those just beginning to apply analytics.[3]

"Analytics-driven" organizations—those that integrate analytics into both core strategic processes and day-to-day operations—apply analytics in many critical areas:

- To attract, retain and grow the value of their customers
- To plan, report and align resources
- To identify, measure and manage risk
- To increase operational efficiency and dexterity

Proven to outperform
Independent research by analyst firms such as Nucleus Research confirms the high return on investment (ROI) that analytics-driven organizations achieve. And these returns are achieved in many different industries, as well as by government and not-for-profit entities.

In a recent report, Nucleus Research found that for every dollar a company spends on analytics, it gets back $10.66. [4]

- Global bio-agronomic and colorant producer Becker Underwood increased inventory turns by 50 percent and achieved other savings that yielded a 383 percent ROI on its investment in analytics.
- By using analytics to more efficiently allocate its marketing resources, First Tennessee Bank realized a 600 percent ROI on its investment in analytics
- Concept One, a provider of licensed sports, entertainment and fashion accessories, deployed an IBM business intelligence and end-user reporting solution, scoring an ROI of 866 percent and paying back its initial investment in analytics in just two months.

- South Africa-based insurer Santam identified a major fraud ring less than 30 days after implementing an analytic solution emphasizing decision management. In addition to saving more than $2.5 million in payouts for fraudulent claims, Santam reduced claims processing time on low-risk claims by nearly 90 percent, cutting costs while boosting customer loyalty.
- In California, the Alameda County Social Service Agency deployed analytics to reduce overpayments and improve agency productivity. The agency saw payback of its original investment in just two months and achieved an ROI of 631 percent.
- A FORTUNE 500 power company that successfully merged with another multi-billion-dollar utility needed to meet the reporting requirements of multiple state and federal agencies, as well as the Securities and Exchange Commission. In one year, the company planned and deployed an IBM business analytics compliance solution that enabled it to meet those requirements. This solution also provide senior managers with the visibility and decision support that helped them plan for, prevent or mitigate compliance risk and optimize business performance.

These organizations have what IBM calls a high "analytics quotient," or AQ. The metric quantifies how far an organization has come in fully embracing business analytics. The more that analytics is infused into your business, the higher your AQ—and the more your business will have the ability to outperform others.

Your organization can find success through analytics, too. You can start by assessing where you are today and then move forward on your journey, adding to your knowledge of analytics and the best ways to apply analytics in your business.

What's your AQ?

Your organization's "analytics quotient," or AQ, is a measure of its readiness, ability and capacity to locate and apply insight from data to optimize business outcomes.

To evaluate your organization's current level of analytics maturity, take a short quiz and learn more about AQ. Just visit ibm.com/ software/analytics/aq/

IBM has identified four stages in the journey to analytics maturity:

- **Novices.** Have only a limited to historical view of data, often through spreadsheets. Aware that they can do better.
- **Experienced.** Show broader collaboration across teams, typically within one department, with both a historical and current view, as well as trending over past and future time periods.

- **Leaders.** Employ defined operational and financial metrics across more than one department. Use integrated, driver-based planning to align resources and predictive models to understand "what if" performance and risk scenarios.
- **Masters.** Set top-down goals, allocating resources based on priorities and shifting dynamics. Everyone knows the objectives and how they can collaborate across the organization to achieve them.

To take action, organizations with a high AQ use an understanding of history and context from the past, guided by predictive analytics that allows them to develop insightful forecasts, optimize recommendations and judiciously automate decisions.

However, there are benefits to be had all along the journey. With every step you take toward greater analytics maturity, your organization can improve its ability to improve outcomes and achieve their goals.

Raising your AQ

As you move to integrate analytics into all decision-making processes, you will act less on fear or gut feel and more on insights drawn from a rigorous and ongoing analysis of what works and what doesn't. Individual performance, decision effectiveness and core business processes can be quantified, analyzed and optimized, with outcomes fed back into a feedback loop for continuous improvement.

Your organization may have been on a journey toward analytics maturity stretching over decades, or you may be just starting out. Either way, you are facing certain realities, in addition to the challenges of "big data" described earlier:

- **The need for flexible deployment options.** You may have a variety of legacy information systems, or your suppliers or business partners do. You need to be able to securely and cost effectively access and interact with all of these data sources, and then manage individual, team, departmental, enterprise-wide, extranet and Internet-scale deployments.
- **High user expectations.** As noted earlier, knowledge workers want fast, easy access to analytics anywhere, anytime. They are also demanding instant, fun and frictionless software that is similar to the personal productivity tools they use.

- **Greater need to support collaboration.** Thanks to the growth in popularity of social networking tools, knowledge workers are now much more comfortable relying on the collective intelligence of the organization to become better informed and make decisions.
- **A skills shortage in business analytics.** For a sustainable deployment, organizations need to have a degree of technical expertise as well as knowledge of the disciplines and business approaches necessary to successfully support the business.
- **Higher expectations in risk management.** In the past few years, as the sources of potential business risks have escalated, tolerance for unmanaged risk has plummeted. This puts a premium on your organization's ability to analyze all the types of risk you may be exposed to and integrate those insights into your action plans.

Clearly, you want to consider your needs long-term and look at solutions that address all the types of data that you have, and the needs of everyone who will need to access, analyze and act on that data.

The capabilities you need

The IBM Business Analytics organization can be a valued partner as you raise your AQ and achieve better business outcomes.

Through acquisitions and organic growth, IBM has created a powerful, innovative and effective business analytics solution. The core components of IBM business analytics software include:

- **Business Intelligence.** Query, reporting, analysis, scorecards and dashboards to enable decision-makers cross the organization to easily find, analyze and share the information they need to improve decision making.
- **Predictive and Advanced Analytics.** Data mining, predictive modeling, "what if" simulation, statistics and text analytics to identify meaningful patterns and correlations in data—including social media data—to anticipate changing conditions and assess the attractiveness of various courses of action.

- **Financial Performance Management.** Budgeting and planning, financial consolidation, scorecarding and strategy management, financial analytics and related reporting capabilities to help simplify, structure and automate dynamic and sustainable financial performance and strategy management practices.
- **Risk Analytics.** Gain transparency into financial and operational risks in advance to help managers understand how these risks can impact your organization's future performance. Support the Governance Risk and Compliance (GRC) methodologies you already have in place to provide an aggregated, enterprise-wide picture of all risk exposures.

Unique IBM advantages

What sets these software solutions apart is a set of core attributes that only IBM can offer. With IBM as your partner, you can ensure your ability to use *all types of information*, make it available to *all the people* who need it, to optimize *all decisions*, and provide insights from *all perspectives* and time horizons. The result? Informed and optimized decisions—at the point of impact.

Delivering all the information you need

With an IBM solution for business analytics, you can leverage IBM's best-in-class information management capabilities to deliver relevant, trusted information, whether you are drawing that information from transactional systems, data warehouses, document management systems, geospatial records or other sources. This provides a solid foundation for business analytics.

Empowering all of your people

IBM delivers comprehensive and integrated business analytics solutions that meet the growing demands of all business users—whether in your organization or among your partner network, in the C-Suite and on the front lines—while providing IT with a low total cost of ownership and secure enterprise governance and control.

Only IBM offers a broad range of flexible deployment options, ranging from individual, desktop-based products to client/server software, workgroup software, on up to centrally managed enterprise software, workload optimized systems and cloud-based services.

Thanks to IBM's open and flexible business analytics system, any and all of these deployment options can happily co-exist, making it easy for you to start your analytics journey anywhere and go anywhere, deploying solutions as your needs evolve.

Supporting all decisions

The ability to make the right decisions at the right time depends a great deal on having the right information in a context that highlights, rather than hides, the most relevant details. This is true for both the strategic and tactical decisions made by executives or managers as well as the recommendations or actions driven by automated systems. Automation features unique to IBM solutions, in fact, support a "virtuous cycle," so that the outcomes of actions and decisions made today improve the quality of the actions and decisions made tomorrow.

Providing a view from all perspectives

IBM business analytics solutions offer information across all time horizons, so that decision makers can look at historical data, combine it with real-time views into current performance, and, In addition, look forward, using predictive models and "what if" scenarios to evaluate a variety of potential risks and opportunities—and optimize results.

Unmatched industry and departmental expertise
IBM offers extensive experience with thousands of implementations of analytics across a range of industries. We can bring proven practices, accelerators and fully adaptable analytic solutions for critical analytic processes such as finance, risk, fraud, supply chain/operations, customer analytics and human capital management. In addition, we enable the creation of "champion" communities within the IBM Innovation Center for Business Analytics, our Customer and Partner Advisory Boards, IBM Research, business analytics workshops and more.

Fully committed to innovation in business analytics
In the past five years, IBM has:

- Invested more than $14 billion in software acquisitions (including Cognos, SPSS, Clarity, OpenPages and Algorithmics) to build the industry's most robust portfolio
- Opened eight Analytics Solution Centers around the world to help clients uncover insights hidden in their data

- Continued to invest in research, most notably, in 2011, introducing Watson, a set of technologies that analyze masses of information at high speed, weigh the likelihood of an outcome being correct, make choices and learn from past actions

It all adds up to Smarter Analytics
IBM recognizes that for organizations to optimize outcomes in today's economic environment, they must become smarter. Executives must make smarter decisions about strategy. Managers must make smarter decisions about resources and tactics. In short, everyone must make smarter decisions about where to focus their energy and time.

IBM is the right partner for your journey to a "smarter" state—whatever your starting point may be—and we welcome the opportunity to help you explore analytics further.

About Business Analytics

IBM Business Analytics software delivers actionable insights decision-makers need to achieve better business performance. IBM offers a comprehensive, unified portfolio of business intelligence, predictive and advanced analytics, financial performance and strategy management, governance, risk and compliance and analytic applications.

With IBM software, companies can spot trends, patterns and anomalies, compare "what if" scenarios, predict potential threats and opportunities, identify and manage key business risks and plan, budget and forecast resources. With these deep analytic capabilities our customers around the world can better understand, anticipate and shape business outcomes.

For more information

For further information or to reach a representative please visit **ibm.com**/analytics.

Request a call

To request a call or to ask a question, go to **ibm.com/**business-analytics/contactus. An IBM representative will respond to your inquiry within two business days.

1. *The Essential CIO: Insights from the Global Chief Information Officer Study*, IBM Institute for Business Value, 2011, page 6.

2. *Analytics: The widening divide: How companies are achieving competitive advantage through analytics*. IBM Institute for Business Value and *MIT Sloan Management Review*, 2011, page 2.

3. Ibid., page 6.

4. Nucleus Research. *Research Note: Analytics Pays Back $10.66 for Every Dollar Spent*. Document L122, November 2011, page 1.

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