

Better Business Outcomes with Business Analytics

Why analytics-driven companies outperform their peers



The need for better business outcomes

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

On the surface these outcomes aren't new; they've been core concerns since money first changed hands.

But if these outcomes have stayed the same, nearly everything else has changed. Organizations must now achieve them within a fierce and unforgiving economic environment unlike anything anyone has ever seen.

The new economic reality

This environment is substantially more volatile, less certain and more complex than in years past. Events, threats and opportunities don't just emerge more quickly or with less predictability; they are converging and influencing each other to create entirely unique situations. The effects of this new reality have been dramatic, disruptive and swift. They have left no industry, company or individual worker unaffected.

The pressure is on

“Nearly eight out of ten CEOs anticipate significant complexity ahead, but fewer than half feel prepared to handle it.” – IBM 2010 Global CEO Study

Because of these disruptions, executives have discovered that the assumptions and methods they relied on are no longer sustainable nor competitive. Those that dug in their heels and held fast to a business model that worked well even a few years ago are seeing their competitive advantage, customer loyalty

and profit margins eroded—if not obliterated—by the accelerating barrage of changes coming from all directions.

For the individual knowledge worker, never before has the pressure to optimize business outcomes been greater; never before has their need for business insights been more acute. Knowledge workers must now draw, share and act on insights from all points on the time spectrum, from historical trends to current results to predictions for future performance.

For organizations to optimize outcomes in this new environment, they must become smarter. Specifically, executives must make smarter decisions about strategy. Managers must make smarter decisions about resources and tactics. Individual employees must make smarter decisions about where to focus their energy and time. Further, decisions and their subsequent actions must be made, carried out, evaluated and optimized more quickly than ever before.

The way to better decisions is through better business insights. And the way to better business insights is through business analytics.

Why business analytics?

Business analytics have emerged in recent years as a strategic priority throughout the C-suite. The reason is simple: they drive better business outcomes.

Business analytics deliver insights for better decisions

Business analytics deliver actionable insights into every aspect of business performance, whether this means current results, customer trends, competitive threats or market opportunities.

For example, when, for its 2010 Global CIO Survey, IBM asked more than 2,500 CIOs from 78 countries, 19 industries and organizations of all sizes to identify one or more of their

visionary plans for enhancing their competitiveness, 83 percent answered “business intelligence and analytics.”¹

Business analytics can also increase the efficiency and effectiveness of core business processes and contribute to the creation of high-performing “analytics-driven” organizations. These advantages are borne out by other, equally large and equally global IBM surveys. Consider these findings from the 2010 IBM Global CEO and CFO studies, respectively:

- **Business analytics improve business strategy and decision-making.** “Standout” CEOs - those who perform well in both good and bad economic conditions - are 16 percent more likely than other CEOs to use iterative strategic planning processes than formal annual reviews. They are also 54 percent more likely to favor quick decisions, despite pervasive economic ambiguity.²
- **Business analytics drive consistently better financial results.** High-performing CFOs can anticipate double-digit gains across revenue growth, EBITDA and return on invested capital. These “Value Integrators” apply more forward-looking insights across the enterprise, from strategic planning to operational optimization and use them to manage risk, reduce costs and spot new opportunities.³

“With the appropriate analytical capabilities spanning process, technology and talent, Finance can turn today’s wealth of financial and operational information into business insights and contribute to significant enterprise value creation.” – IBM 2010 Global Chief Financial Officer Study

Business analytics are most effective when deployed to answer three key questions:

- How are we doing?
- Why?
- What should we be doing?

With clear answers to these questions, employees at every level of an organization can make better decisions about strategy, resources and tactics. They can contribute to a common store of insights that are shared over divisions and departments. And they can take more effective actions to drive better outcomes.

The analytics-driven organization

Organizations that deploy business analytics also effect longer-lasting improvements in their decision-making culture: these organizations become “analytics-driven.” In achieving this state, they can draw, share and act on business insights to overcome long-standing, sometimes entrenched barriers to better business outcomes. These include:

- **Obstructed views.** Employees fail to seize the full potential of an opportunity because they see only a portion of the information they need to understand results and make confident decisions.
- **Rigid structures and processes.** Employees are unable to make decisions or act on information, even if they can see emerging opportunities or threats.
- **Distractions.** A misalignment of tactics with goals or competing priorities diverts energy and resources toward what matters to executives.
- **Fragmentation.** Competing cultures and conflicting accountabilities dilute organizational effectiveness. Information silos prevent a complete, consistent view of results and lead to sub-optimal decisions.

¹ *The New Voice of the CIO: Insights from the Global Chief Information Officer Study*, IBM Global Business Services, 2009, page 15.

² *Capitalizing on Complexity: Insights from the Global Chief Executive Officer Study Executive Summary*, IBM Global Business Services, 2010, page 4.

³ *The New Value Integrator: Insights from the Global Chief Financial Officer Study*. IBM Global Business Services, 2010, page 3.

- **Reactive cultures.** Employees respond too slowly to opportunities and threats, ceding market share and growth opportunities to more agile competitors.

Analytics-driven companies, in comparison, base decisions and actions not on gut feel or fear, but 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. Further, analytics-driven companies excel at sharing these insights more broadly across teams and functions to create a rich and ever-growing body of knowledge. In doing so they are building a commonly shared store of information and insights to fill the holes in their corporate memory.

As a result, analytics-driven companies exhibit smarter, more effective business behaviors. In place of the typical barriers to better business outcomes, employees in these organizations are:

- **Aware.** Complete and immediately accessible insights into performance help employees understand whether and why performance is on or off-track.
- **Focused.** Relevant, personalized insights help employees understand the strategy and goals so they can prioritize their decisions and actions.
- **Aligned.** Consistent and commonly shared insights help employees direct their energies and resources toward the actions that drive better outcomes.
- **Agile.** Timely insights help employees respond immediately and coherently to emerging opportunities and threats through better decisions and actions.
- **Proactive culture.** Forward-looking information helps employees identify problems and resolve them before they hurt performance.

Why IBM Business Analytics?

“Where once we inferred, now we know. Where once we interpolated and extrapolated, now we can determine. The historical is giving way to the real-time, and even the predictive.” – Sam Palmisano, IBM Chairman and CEO

Through acquisitions and organic growth, IBM has created a powerful, innovative and effective business analytics solution. In the past five years, we have:

- Invested more than \$14 billion (including the acquisitions of Cognos and SPSS) in software to build the industry's most robust portfolio
- Created the Business Analytics and Optimization service line of our Global Business Services® division and staffed it with more than 7,000 dedicated consultants
- Opened eight analytics Centers of Excellence around the world to help clients uncover insights hidden in their data

The core components of IBM business analytics software include:

- **Business Intelligence.** Query, reporting, analysis, scorecards and dashboards to enable decision-makers across 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 sets to predict future events and assess the attractiveness of various courses of action
- **Financial Performance and Strategy Management.** Budgeting and planning, financial consolidation, scorecarding and strategy management, financial analytics and related reporting capabilities to manage risk and help simplify, structure and automate dynamic and sustainable financial performance and strategy management practices
- **Governance Risk and Compliance.** Financial controls management, operational risk management, IT risk and compliance, vendor risk management and internal audit management for an aggregated, enterprise-wide picture of all exposures that helps CFOs and CIOs understand how these risks can impact the organization’s future performance
- **Analytic Applications.** Applications with ready-made reporting and analysis that measure performance for a specific business domain such as customer, workforce, supply chain or financial performance management

Underpinning this software is a set of core attributes and offerings unique to IBM.

Complete capabilities

IBM offers the complete range of business analytics capabilities to fully anticipate and shape business outcomes. These encompass:

- Reports, scorecards and dashboards that enable a deep understanding of past, real-time and future performance
- “What-if” scenario and predictive modeling capabilities that help identify the ideal course of action

- Enterprise planning, budgeting and forecasting capabilities to align resources for better business outcomes.

Standout capabilities include:

- Fully integrated predictive analytics
- “What-if” scenario modeling capabilities, powered by a 64-bit, in-memory OLAP engine that supports write-back
- Fully adaptable packaged analytics

A proven platform

The IBM business analytics platform ensures that our clients can maximize productivity from both their business users and IT teams. The IBM business platform is easy to deploy and manage, with capabilities that simultaneously reduce the IT burden and increase business user satisfaction. The IBM platform is special because:

- Its independent, service-oriented architecture fits easily into your existing IT infrastructure.
- It helps clients build a foundation of trusted information built on rich IBM capabilities for data warehousing, data quality, data cleansing, integration and more.

Unmatched industry and departmental expertise

IBM offers extensive proven practices, accelerators and fully adaptable analytic applications for key analytic processes such as finance, risk, fraud, supply chain/operations, customer analytics and human capital management, across key industries. In addition, we enable the creation of “champion” communities within the IBM Innovation Center for Business Analytics, Customer and Partner Advisory Boards, IBM Research, business analytics workshops and more.

Building the analytics-driven organization

With its combination of software, hardware and consulting expertise, IBM is driving the creation of analytics-driven organizations in every industry, around the world.

Unlike their peers, these organizations not only drive better business outcomes, they anticipate and shape them as well. For example, these organizations can:

- **Detect patterns to stop crime before it happens.** Through real-time crime data, geo-spatial mapping and more accurate risk assessments, police departments across North America are making more efficient use of both financial and human resources, closing more cases more quickly and increasing officer safety.
- **Anticipate demand and match it to supply.** Through predictive analytics, retail chains in Europe can rapidly predict and manage stock replenishments based on the variations in demand and sales from store to store. Further, they can connect their core systems for immediate end-to-end monitoring and adjustment of their supply chain.
- **Increase agility to respond to opportunities.** With the power to analyze a staggering 30 million data records in seconds, major logistics companies benefit from an immediate (and immediately clear) overview of results. Managers can identify cost drivers to optimize production processes, cut operating costs and deliver a precise view of contribution margins.

Independent ROI studies by analyst firms including Nucleus Research confirm the business benefits of IBM business analytics as both measurable and dramatic. For example:

- Using improved forecasting and reporting, Blue Mountain Resorts was able to reduce labor costs and excess inventory for a one-month ROI of more than 1,800 percent.
- Using predictive analytics and increased visibility into real-time crime information, the Memphis Police Department was able to reduce crime rates without increasing its staff for a three-month ROI of 863 percent and average annual benefit of \$7.2 million.
- By standardizing its financial close process, Huntsman Corporation was able to reduce audit fees and increase productivity for a five-week ROI of more than 1,000 percent.
- By increasing employee access to sales, inventory and accounts receivable (AR) data, U.S. Lumber improved productivity, reduced inventory levels, accelerated AR turnover and reduced capital costs for an 11-day ROI of more than 3,600 percent.

IBM Cognos 10: Unleash intelligence

The latest innovation in the IBM business analytics software solution and the first of many to come, IBM Cognos 10 will change how organizations make decisions, allocate resources, predict and plan the future.

IBM Cognos 10 revolutionizes how organizations use business intelligence by freeing people to think, connect with others and infuse insights into everything people do:

- **Freedom to think:** Cognos 10 delivers a revolutionary user experience that supports the way users think, so they no longer need to interrupt their train of thought to fit the software. It does this through a new BI workspace that delivers greater power, intuitive navigation and a cleaner look.
- **Connect with others:** Cognos 10 delivers built-in collaboration and social networking to fuel the exchange of ideas and knowledge that naturally occurs in the decision-making process, but that is also trapped within meeting notes, manual processes, emails and people's notebooks. It does this by enabling users to form communities, capture annotations and opinions and share insights with others around the information itself. The new Cognos 10 collaboration and social networking fuels decision excellence and builds a corporate memory to capitalize on in the future. With built-in collaboration and social networking, Cognos 10 harnesses the collective intelligence of the organization to connect people and insights and gain alignment.
- **Simply do:** Cognos 10 delivers mobile BI, real-time BI and BI mashups to transform BI from an activity apart from users' everyday work to BI a very natural and essential part of everything they do. It does this by delivering interactive analytics to frontline workers and people on the road, and by extending the power of BI for use by more people and more user communities than ever before.
- **Built on a proven technology platform:** Cognos 10 is designed to upgrade seamlessly and to cost-effectively scale for the broadest of deployments. It provides business users and IT alike the freedom to see more, do more—and make the smarter decisions that drive better business results.

Summary

Business analytics is the means by which organizations optimize business outcomes. Using insights that can be accessed, shared and acted on by employees at every level, organizations can increase profits, reduce costs, manage risk and make more accurate predictions to prepare for future outcomes. With its unique combination of software, hardware and consulting services, IBM provides the industry's most powerful, effective and innovative business analytics solution, enabling thousands of organizations to anticipate and shape business outcomes. With IBM Cognos 10, IBM continues its rich history of industry vision and product innovation to help our clients survive – and thrive – in the next decade of smart.

About IBM Business Analytics

IBM Business Analytics software delivers complete, consistent and accurate information that decision-makers trust to improve business performance. A comprehensive portfolio of business intelligence, advanced analytics, financial performance and strategy management and analytic applications gives you clear, immediate and actionable insights into current performance and the ability to predict future outcomes.

Combined with rich industry solutions, proven practices and professional services, organizations of every size can drive the highest IT productivity and deliver better results.



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