Introduction

Recent studies confirm what thousands of organizations have known for years: Business analytics drive better business outcomes. For example:

- A 2010 joint study by MIT Sloan Management and the IBM Institute for Business Value shows analytically mature organizations to be three times more likely to outperform their less mature competitors; top-performers are 5.4 times more likely to use an analytic approach within their business processes than to rely on intuition.¹
- The 2010 IBM Global CFO Study reveals that investments to improve both efficiency and business insight deliver two-times higher EBITDA growth, 36 percent higher revenue CAGR and 15 percent (or higher) return on invested capital.²

Not surprisingly then, when IBM asked more than 2,500 CIOS from 78 countries for its 2010 global CIO Study, 83 percent tagged “business intelligence and analytics” as their top priority.³

That you’re reading this paper indicates one of two things:

- Either (A): You – or your organization – is already using business analytics and you want to go further in your journey.
- Or (B): You’re not using business analytics – at least not to your knowledge – and you want to get started.
If you answered “A,” then you or your organization have already experienced some of the better business benefits of business analytics, be they lower costs, higher profits, lower risk, happier customers, greater agility, increased visibility, greater alignment, predictive insights and so on.

If you answered “B,” welcome aboard. You’ve made the right decision. Driving better business outcomes has never been more important – or more challenging. Today’s “new normal” is putting unprecedented pressure on business leaders to make faster, more fact-based decisions that maximize outcomes and minimize risk.

**AQ Defined**

This paper will help you understand a new concept from IBM Business Analytics entitled “Analytics Quotient,” or AQ for short. Just as with IQ and EQ, there is now a method that helps people and the organizations they work for measure how well they apply analytics to their strategic plans, operational processes and overall decision-making.

AQ measures your readiness, ability and capacity to locate and apply insight, thereby re-orienting your business to make better decisions that deliver better outcomes. It measures your ability to act based on understanding history and context from the past, and your ability to make insightful forecasts and anticipate likely outcomes to optimize recommendations and judiciously automate decisions. We consider organizations and individuals that use analytics to drive their business as having a “high AQ.”

The more you infuse analytics into your business, the higher your AQ. The higher your AQ, the better you and your organization will perform.
Components of AQ

The AQ concept has two core components. The first is a numerical score that we calculate based on your answers to 15 multiple-choice questions. These include:

- What's the quality of the information you use to make decisions?
- What's your strategy for leveraging analytics?
- Have you documented successful outcomes of analytics initiatives in your organization?
- What percentage of your decision-makers use analytics to inform their decisions?
- How do you anticipate future events and results?

The second component is an AQ Maturity Model that maps these scores to one of four stages of increasing analytical maturity. Again, like IQ or EQ, the higher you are on the scale, the better you’re likely to perform.

The four stages of Analytical Maturity and their respective AQ scores are as follows:

<table>
<thead>
<tr>
<th>Stage</th>
<th>AQ Score</th>
</tr>
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<tbody>
<tr>
<td>Novice</td>
<td>Under 80</td>
</tr>
<tr>
<td>Builder</td>
<td>80-119</td>
</tr>
<tr>
<td>Leader</td>
<td>120-140</td>
</tr>
<tr>
<td>Master</td>
<td>141 and above</td>
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</tbody>
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Determine your own AQ right now with our online AQ Self-assessment.
http://www.ibm.com/analytics/aq
The AQ Maturity Model distills the lessons of 30 years and thousands of successful customer outcomes.

Draws extensively from a broad range of qualitative and quantitative external data including market surveys, analyst research and industry benchmarks. Finally, it incorporates the insights and experiences of longstanding and long-successful IBM Business analytics customers.

**The Stages**

*Novice or Builder? Leader or Master?* It’s important to note that learning your AQ and your stage on the AQ Maturity Model are simply the first steps in your journey. Also, it’s not uncommon for individuals and groups to operate at various stages within a single organization. Every organization, team and individual is at their own point in leveraging business analytics to outperform.

That’s ok. Because regardless of your score, your next step is build a plan to reach the next stage in your analytical maturity. In the pages that follow, we’ll show you examples of IBM customers who’ve done precisely this. All are operating at the *Master* stage, having gained unique and valuable insights at every stage of their journey. We’ll outline the steps you can take with IBM right now to move toward a higher AQ for yourself, your team and your entire organization.

Let’s look at each stage of the AQ Maturity Model and their respective progression paths in more detail.
Novice
At this first level, individuals or teams analyze their own data, typically using spreadsheets or basic query tools. Here, knowledge workers have only a limited historical view into past performance and must rely in large part on “gut feel” to make decisions about current or future performance. It’s at this early stage that the negative effects of rudimentary or incomplete analytics are most acutely felt, as outcomes are often hampered by inefficiencies, delays, miscommunication and the pain of missed opportunities. Any one of these impediments can serve as the necessary “burning platform” that drives organizations to take their first step toward a higher AQ.

This was certainly the case for Mueller, a privately held manufacturer of prefabricated steel buildings, roofing and construction products. Back in 2004, the company was struggling to satisfy the information needs of its various managers. As effective as its new ERP system was in collecting and storing information, it was equally ineffective in producing actionable information. As Planning and Financial Analysis Manager Mark Lack recalls: “Finance and executives wanted to spend more time on strategy and improving the business. Operations, sales and customer service wanted to quickly and consistently share information across the organization to improve results. Everyone wanted out of spreadsheet jail and fast reporting when they needed it.” Mueller’s first step toward Builder status was to adopt a Balanced Scorecard methodology powered by IBM Cognos Business Intelligence, IBM Cognos Planning and IBM Cognos Analytic Applications. The move paid off: so successful has Mueller been with its implementation since then that in 2007 the company was inducted into the Balanced Scorecard Hall of Fame.

Spreadsheets were also the problem at wireless provider Cellular South, the largest privately owned telecommunications company in the United States. Justin Croft, the company’s manager of Financial Analysis and Planning, wanted to escape the limitations of an outdated and inefficient budgeting system of spreadsheets and General Ledger reports. In 2006 the company made the switch to IBM Cognos TM1 – a move that released Croft from “tedious spreadsheet hell,” cut reporting time by 80 percent and moved the entire company toward a more collaborative, efficient and customer-focused technology platform.
Your next steps
As challenging as the Novice stage is to operate in, the good news is that it’s also the easiest one to get out of. Every customer begins their business analytics journey here and the path leading to the Builder stage is both well-worn and well-marked.

Learn more about IBM Business Analytics and how you can leverage them to drive better outcomes:

- See how to make better, faster and smarter decisions in our business analytics Web demo.
- Learn how to leverage “sweet spots” of information in your core business functions with our book, The Performance Manager.
- See how to increase trust in your information with our data quality white paper.
- Discover the breadth of IBM business analytics solutions in the Executive Report, Breaking Away with Business Analytics.

Builder
The second stage of the AQ Maturity Model is defined by broader collaboration across teams – typically within one department – that use both historical and current views of data, as well as trending for past and future time periods. At this level, decision-makers may use dashboards to drill down or sum up complex information quickly. Groups operating at this stage have strung together some quick wins necessary to win over the skeptics and now start to move more quickly, make more effective decisions and prepare longer-term plans.

Becker Underwood, an Iowa-based $150 million producer of turf management, agriculture and forestry products, saw these exact benefits after its move into the Builder stage. The move involved deploying an IBM data warehouse and IBM Cognos Planning software right before its budgeting season. With an initial focus on high-impact areas such as Sales and the Order/Refresh process, the company saw immediate gains: a 50 percent increase in inventory turns, a 15 percent increase in forecast accuracy and a liberation from spreadsheets. Finance can now incorporate customer- and product-level data into its 12-month rolling forecast to provide greater visibility into its future outlooks.

Read the full story of Becker Underwood and SETMA at ibm.com/analytics/aq.
Quicker and more accurate information were also among the benefits for Southeast Texas Medical Associates (SETMA), whose multi-specialty services include clinical laboratory, mobile x-ray and physical therapy. “The analysis of patient encounter data may seem simple until you consider that our patient database is huge, and it would typically require 36 hours to run the reports we require to continuously improve patient care,” observes James L. Holly, M.D. and SETMA Managing Partner. Thanks to an IBM Cognos business intelligence infrastructure, SETMA specialists now have up-to-date reports on every patient every day. With this most current information, SETMA specialists can ensure every patient benefits from the organization’s high standards of care.

**Your next steps**

The *Builder stage* is where the fun really begins for business analytics. By now you’ve seen what it can do for you, and your team has bought into the benefits as well. Not only are you performing better, your entire team feels empowered to do more and go further. Progressing from here to the *Leader stage* means building structures, processes and strategies to support a broader deployment. For example:

**Collaborate with your key IT and business stakeholders to identify priorities and plan your roadmap:**

- Build your business case, analytics strategy and Center of Excellence with resources from our [Business Analytics Champion’s Kit](#).
- Learn how to optimize your current deployment and reduce your ownership costs with our White Paper, [How to reduce TCO and increase ROI of business intelligence](#).
- Increase your predictive capabilities using insights from the White Paper, [Seven reasons you need predictive analytics today](#).
- See how to streamline and simplify your planning, budgeting and forecasting capabilities with our [IBM Cognos TM1 Web demo](#).
- Discover new innovations to drive greater adoption, including [mobility](#) and [collaboration](#).
Leader

These organizations are typified by VP-level accountability, with defined operational and financial metrics across more than one department. These organizations can combine data from various systems to achieve a cohesive view of conditions. Integrated, driver-based planning aligns resources, and predictive models are used to evaluate “what if” performance and risk scenarios. They are also beginning to selectively deploy automated decisions within business processes. They have formalized a center of excellence with roles and responsibilities, a shared service environment, standard technologies and processes and a strong community of stakeholders who regularly evaluate and revise strategies and priorities.

Teams operating at this stage dive deep into their data to drive a wide-ranging impact. When they operate at this stage, it’s highly unlikely for individuals, teams or organizations to promote a strategy or pursue a tactic that’s not supported by a high degree of analytics-driven insight.

At mobility provider Cellular South, for example, Business Analytics Leadership involved detailed scrutiny and analysis of customer profitability across five dimensions: Rate plan, device, geographic area, customer segment and time. The benefits of such scrutiny? Insights from Justin Croft’s team of analysts helps the company understand the impact of its product combinations to continuously identify and promote its most profitable service bundles. “Within our customer-level model we feed in our revenue data from our billing system, cost data from our general ledger and actually calculate how much we make on every customer every month,” says Croft. With business analytics now firmly entrenched and widely deployed throughout its operations, Cellular South continues to refine its platform with scenario modeling, driver-based forecasts and alternate strategies that look up to five years in advance.

At Infinity Property & Casualty, the focus is instead on the here and now. Speed is critical to the Alabama-based personal and automobile insurance company, as it provides 24/7 service and processes between 25,000 and 30,000 claims each month. As VP Claims Bill Dibble puts it, “The fresher the evidence in any fraud investigation, the better the results.” Among its Leader-level initiatives was using insights from IBM SPSS Modeler to develop an extensive set of rules to score claims on first notice of loss, and re-engineer its processes and train call center agents to ask questions based on sophisticated predictive models. Now, instead of the usual one-month timeframe, suspicious claims are routed to its Special Investigative Unit in a mere three days.
Your next steps

Leaders of business analytics are tremendously competitive organizations. Not only are their individuals highly skilled in sophisticated analytical models and methods; the high likelihood of their having a Business Analytics Center of Excellence or a Business Intelligence Competency Center (BICC) in place means analytical insights are weaving their way into core business processes. Finally, the high degree of collaboration and communication among their various departments earn them the greater efficiency and increased agility they need to prepare for and take advantage of emerging opportunities before their less adept competitors. The move to Master status involves several key steps.

Fine tune your scorecards and strategy with industry-specific solutions and expertise:

- Learn how industry-specific expertise from IBM can increase the value of your business analytics solutions with our White Paper, Business Analytics for your industry or engage our Business Analytics and Optimization Services.
- See how to better decision management and increased your consumer insight help you align operations with strategy with our predictive analytics Web demo.
- Discover how to reduce risk, minimize earnings volatility, increase your financial efficiency and ease regulatory burdens with our solutions for governance, risk and compliance.
- See our solutions live and in person, discover how to drive business analytics further into your organization and share your excitement with your colleagues at one of our live Business Analytics Workshops.

Master

These organizations are able to set top-down goals and allocate resources based on strategic priorities and real-time insight into shifting dynamics. Analytical insight across all time horizons is expected and data-driven decisions are the culture. Everyone – regardless of their role – knows the objectives and how they can collaborate across the organization to achieve them. Decision-makers have the information they need at their fingertips, whether they are in the boardroom evaluating strategic moves based on analytics-based recommendations or in customer-facing roles making sales offers based on automated feedback systems. At this stage, analytics-driven decisions are no longer the exception, but the rule.
“There’s always something more to learn,” says Bill Dibble Infinity Property & Casualty. Having mastered the intricacies and mined the value of its structured data, the company is turning its attention to IBM text analytics to identify the legitimacy and severity of a loss more clearly. Driving customer service excellence is the rationale for the company’s business analytics journey; by identifying fraud more quickly, Infinity can pay out legitimate claims sooner to keep satisfactions scores high. In addition, Infinity’s use of business analytics has raised its employees’ own job satisfaction: call center agents feel empowered to handle claims on their own and field adjusters actually spend their time in the field putting their specialized skills to work.

Becker Underwood also sees a greater consistency and alignment thanks to its broad-ranging business analytics infrastructure comprised of IBM planning, forecasting, dashboards, scorecards, predictive analytics and consolidation capabilities. These integrated capabilities put the right information into the hands of decision-makers across their organization at precisely the right time and in precisely the right format. The company’s mastery of business analytics has enabled its component functions to operate collaboratively and coherently. The result? Significant improvements to its business processes, financial results and customer satisfaction.

**Your next steps**

If you find yourself at this stage, congratulations. You have indeed come a long way in your journey and you’ve improved outcomes across the board along the way. Nevertheless, there is room for improvement. Profits can always be higher; costs always lower. Data volumes continue to grow in size and complexity. Risk is as present as the future is uncertain. Yet such is the strength of the analytics-driven organization that it manages each of these pressures effectively through its ability to quickly shift priorities, reallocate resources and drive enterprise-wide alignment. Remaining at the Master stage means engaging with your equally successful peers and forming mutually beneficial business relationships that transcend any particular technology. For example:

You can read the full story of Business Analytics Masters Infinity Property & Casualty and Becker Underwood at ibm.com/analytics/aq.
Optimize your strategy and refine your processes to gain efficiencies and capture new business outcomes:

- Learn how to stay ahead of disruptions and leverage emerging trends by engaging our Business Analytics and Optimization Services.
- Network with peers to leverage emerging best practices and share your success stories by joining our Business Analytics Excellence Community and our Performance Leader Program.
- See how to formalize your enterprise data governance programs to continually refine and automate decisions.
- Learn about the analytics frontier and you can leverage the latest developments.
- Keep track of new innovations like IBM’s Watson and learn how you can take advantage of them with our Deep Insight services.

About IBM 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 Analytics: The new path to value. How the smartest organizations are embedding analytics to transform insights into action. IBM Institute for Business Value & Massachusetts Institute of Technology, 2010.


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