

A White Paper

Actionable Analytics at Scale

**How to Create Value in a
Connected World**



Information Builders provides the industry's most scalable software solutions for data management and analytics. With one smart platform for integration, data quality, and analytics, we help companies manage their data, generate insights, take action, and deliver impact.

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Introduction

Analytics aligned with day-to-day activities and user experiences designed for deep exploration or fast answers lead to informed actions and confident decision-making. This, in turn, changes the culture of an organization by holding everyone accountable for making the kind of decisions that move the business forward.

What makes analytics actionable? It's not enough to generate reports, charts, spreadsheets, graphs, and data visualizations. The information must be immediately comprehensible and **the insight derived should make it clear whether or not action should be taken**. Actionable analytics also vary by each individual and his or her abilities – data scientists and business analysts are trained to explore and discover trends and insights from large data sets and make recommendations based on their observations. But not every decision-maker is as data savvy.

How do you empower non-technical folks to make more informed decisions? By providing just the data that is relevant to them, and allowing them to analyze and understand it easily. There are a variety of creative ways to do this: embed analytics in a corporate application, create a simple interactive app, send an alert, or build a personalized infographic. **The most actionable analytics are the most personalized to the decision-maker's needs**. They can make observations, get insights, and take action with confidence and ease.

This paper will investigate ways to drive performance with actionable analytics. The importance of trusted data as part of an analytics strategy, the need for a modern platform to support analytics on a broad scale, and how ease of use ensures high adoption will also be discussed. Finally, real-world success stories will demonstrate the value actionable analytics can bring to any organization.



Making Analytics Actionable: What Are the Challenges?

With 97 percent of organizations using data and analytics in at least one area of their business¹, there are bound to be some obstacles when it comes to leveraging those insights in the most effective way.

- **Lack of Sufficient Skills** – Only 14 percent of CIOs surveyed by KPMG felt that they were able to get insights into the hands of the right people, and that those people were able to successfully leverage those insights
- **Data Quality Concerns** – Approximately 58 percent of organizations question the reliability and quality of the data they are using for analysis. Mistrust in data can make insights less actionable and discourage users from leveraging the analytics tools available to them
- **Dissatisfaction** – Many organizations aren't getting the desired value from their data and analytics strategy. Only 19 percent of those surveyed say they are "very satisfied" with the insights they currently get

These factors lead to lower-than-optimum adoption rates of analytics business-wide – and lower organizational intelligence as a result.



¹ "Going Beyond the Data: Turning Data From Insight Into Value," KPMG International, June 2015.

Trusted Data: The First Step

Analytics are only as valuable as the data they draw upon. Recent research by Experian² demonstrates the impact that data quality has on the strategic value of enterprise information. Organizations that treat their data as a mission-critical asset and take a proactive approach to managing its timeliness, completeness, and accuracy, are the ones who will truly reap the benefits.

To inspire confidence among users, and to encourage them to embrace analytics as part of their daily activities, they need to know that the information they rely on to take informed action is as trustworthy as possible. Yet, according to Experian, 93 percent of organizations still struggle to identify and resolve data quality issues. Perhaps this is because there's more data from more sources than ever before.

As a result, the importance of data governance and stewardship, which includes data quality, data integration, and metadata management, is increasing. A strategy that combines integrated analytics with comprehensive data management is the foundation of success in analytics and operational excellence.

For example, the **State of Louisiana** is strategically leveraging its portfolio of data and information assets, creating a repository of clean, consistent data that can be shared by multiple agencies. These agencies can analyze citizen data, as well as identify and link common relationships, households, and entity affiliations. In the short-term, this will help the State to modernize a constellation of Medicaid systems. The long-term vision is to better govern and manage systems and data on a larger scale across multiple State agencies.

For the State of Louisiana, a more accurate view of patterns in their Supplemental Nutrition Assistance Program makes it easier to detect illegal activity.

Financial services firm SWBC is also exploiting its data to obtain a cohesive view of customers. When a variety of divergent applications and data sources made it difficult to obtain complete, accurate customer details, a combination of data governance procedures and supporting technologies was implemented to promote consistency in customer records. Stakeholders now have a single view of accurate, up-to-date customer data, so they can interact with clients in a more knowledgeable way.

A single view of accurate, up-to-date customer data at SWBC reduces the time to onboard new clients and data sources. Information can be filtered and analyzed on demand and is easily viewed in graphs, charts, and reports.

² Rossi, Ben. "How Data Quality Analytics Can Help Businesses 'Follow the Rabbit,'" Information Age, May 2015.

Analytics-Powered Performance

"We need analytics because it is supposed to guide us to the right decisions," says Salesforce.com's Arijit Sengupta³. "Analytics has the power to tell us what we need to do and how to do it at the moment we need to make a business decision."

Organizations that incorporate actionable analytics into their strategies to boost operational performance and profitability will truly empower their stakeholders to make decisions in the moment. Effective actionable analytics plans, with the right supporting technologies, will automate processes for the utmost in efficiency and accuracy, while uniting the enterprise around a single version of the truth instead of siloed islands of competing data.

Many organizations are taking this approach to realize real, tangible value from their enterprise information. At **United Way**, 13,000 users analyze enterprise information through an intuitive portal, giving each office a better understanding of how best to meet community needs, and therefore, how to best target and distribute money from fundraising efforts – around \$4.7 billion in contributions annually. This approach also helps to underpin a performance-based culture and, as such, creates more value and future-proofs the company's environment, ensuring it can evolve over time, and more precisely serve the diverse needs of global communities.

United Way better serves 61 million people each year with targeted, relevant services, as evidenced by the successful distribution of tens of millions of dollars in aid following devastating hurricanes.

Lipari, a major food distributor, creates value throughout every step of the supply and distribution process. Suppliers, sales, and operational management all speak the same language as they sift through data and insights – from the big picture to the most granular piece of information – in real time from any device or computer.

At Lipari Foods, vital real-time data is readily available and easy to access. Mobile and desktop content empowers managers to monitor trends and review transactions from any device or location.

³ Sengupta, Arijit. "Empowering Everyone With Actionable Analytics," Computer Weekly, January 2018.

The Importance of a Modern Platform Approach

Today's C-Suite recognizes that data and analytics are going to impact every part of a business. Over the next decade, this will require thinking strategically rather than tactically. Instead of focusing on how to get insights to business units, the focus needs to be on acquiring a platform that will enable designing, building, deploying, and managing the different applications that the enterprise will demand. To make matters more complex, this information strategy must unfold against the backdrop of advances in cloud and mobile technology, big data, Internet of Things (IoT), machine learning, blockchain, and high-performance hardware – all continuing relentlessly to drive disruption and new economic models.

That's why data integration is critical. Information applications need to interact with a variety of other applications and access a variety of data sources. Traditional integration techniques were effective, but today's evolving information landscape demands more. Modern approaches to data integration are more flexible, more agile, and make it easier for organizations to embrace the large quantities of data currently being generated by new sources.

If businesses want the right kind of data to underpin advanced analytics processes or to create multi-dimensional views of customers and suppliers, data integration must be pursued as a strategic function that aligns with business objectives. Developing an environment that balances democratization of data access, self-service analytics, operational impact, quality, and governance is key.

When it's assembled and working properly, data creates insights, which drive individual decisions that cause change and propel an organization toward its full potential. Machine learning is one of the most exciting innovations in analytics today. Its use is accelerating rapidly – not just for the recommendation engines of tech giants such as Amazon and Facebook, but also for financial services, government, manufacturing, and other organizations to better target marketing spend, service customers, predict faults, and detect fraud.

Scale Matters

In the industry's rush to self-service, something essential has been lost. How do you remove IT from the equation and empower the user community to analyze and visualize information?

You don't.

Organizations that have eliminated IT involvement altogether now find themselves with different departments and different people using their own disparate and disconnected tools. They experience inconsistent results, multiple versions of the truth, and diminished user trust in the environment. On the other hand, allowing IT to retain full control over the analytics environment leads to disengagement. Users often feel too constrained to get the information they need, when they need it.

The best approach is one that finds balance between the two. Tools and capabilities that empower users with free-form, "anything goes" analytics must be tempered with some level of governance when needed. That way, business users always have access to the insights they need, but at the same time can always be assured that those insights are accurate, complete, and trustworthy.

The most effective enterprise-wide analytics environments bring together business and IT professionals with the best techniques and technologies creating a data-driven culture that makes analytics as actionable as possible, without sacrificing the integrity of the whole. Together, these teams must collaborate to help protect and manage data in an integrated fashion, with the end result being actionable insights at scale. Scale is important, and with scale comes the industrial-grade requirements of security, high-performance, and reliability. By effectively empowering hundreds, thousands, and even millions of people, organizations gain a multiplier effect from these individual insights that raises intelligence and performance throughout the enterprise.

There are many possible approaches to empowering all these users. While self-service analytics are the most obvious way to deliver actionable insights to so many people, organizations can also embed analytics into other applications, such as Salesforce.com, enterprise web pages, or portals – or even into enterprise workflows and business processes. They can set up real-time operational alerts or event-driven triggers as well as leverage exciting new capabilities, such as voice activation and enterprise search.

Actionable analytics need to be accessible through more than just typical reports and dashboards. Maximum operational impact will be achieved when real-time, trusted, actionable insights permeate all facets of the organization, making everyone accountable for making better decisions.

Make the Complex Easy and the Easy Automatic

Widespread participation is the key to analytics success. The more people who can leverage your enterprise information, the more valuable it is. While most organizations know this to be true, many still struggle to get everyone to embrace their analytics strategy. Years after their initial implementation, a high level of adoption among their user communities still remains an elusive goal.

For some, the problem lies with the complexity of their tools, which are often too sophisticated for everyone to use. The needs – and the skill set – of an analyst varies greatly from those of a casual business user. Yet many tools are so advanced, only technically savvy power users can take advantage of them. Other solutions provide high-level views for executives, but leave stakeholders who need to delve deep into operational data in the dark.

High adoption can only be achieved when an analytics environment caters to everyone. Ease of use is critical – analytics must be just as intuitive for a line-of-business worker as they are for an analyst. Furthermore, because different scenarios drive different information needs, users should be given a variety of different ways to interact and communicate with data.

For example, mobile voice and search are modern techniques that make understanding complex data as easy as asking a question. Infographics with compelling visuals let you tell a story with your data that can be comprehended at a glance. And information applications – whether purpose-built or embedded into other operational enterprise applications – allow casual information consumers to engage in data exploration through a user-friendly interface that's just as simple to navigate as consumer web apps, such as Expedia or Uber.

This level of ease and flexibility delivers higher adoption and return on investment. Whatever the interface to the data, the ability to access production data from a variety of sources changes the game.

For example, **AutoZone** is experiencing very high levels of adoption, with 87,000 employees, 1,500 suppliers, and 6,000 stores actively engaging in analytics. These users make more than one million information requests each week to keep an eye on sales activities, monitor store performance, or track important business functions, such as inventory and payroll. This broad adoption is made possible by an analytics environment driven by versatility, functionality, and, most importantly, usability.

AutoZone's enterprise analytics environment supports 87,000 employees, 1,500 suppliers, and 6,000 stores, helping to automate key business processes, from store operations to merchandizing to customer satisfaction reporting.

Actionable Analytics Checklist

To ensure your analytics are as actionable as possible, organizations need to look for a modern BI and analytics platform that offers:

- The ability for BI specialists and non-technical users to create analytical content in just minutes, then embed them into portals or third-party systems, or deploy them standalone
- Intuitive ways for end users to consume, organize, personalize, and explore analytical content, while allowing BI developers and administrators to manage the deployment, access, and presentation of governed content to users
- Advanced functionality, such as social media and predictive analytics, as well as new innovations such as prescriptive analytics and data science capabilities
- Collaborative features that promote the widespread sharing of information and insights
- Generation of infographics, which expand the reach of analytics by engaging decision-makers in a visually attractive, compelling, and easy-to-decipher form
- The ability to locate existing reports, charts, dashboards, and visualizations indexed in a BI archive through simple, intuitive, Google-style searches, to accelerate the discovery of insights
- Creation of purpose-built, business-driven, interactive analytical apps that provide any decision-maker with fast, easy access to actionable information – without having to understand the complexity of the underlying data or tool
- Maximum scalability, with the ability to support large user populations without excessive hardware and software costs

Conclusion

“Organizations that have made BI and analytics pervasively available to decision-makers at all levels are able to generate faster and more actionable insights from data,” according to Chandana Gopal, IDC research manager, Business Analytics⁴. “Better decision-making is enabling these organizations to gain competitive advantage over their peers or to fulfill their missions to their constituents.”

Actionable analytics deliver true value from information assets, value that can benefit all stakeholders including partners, customers, and employees. When supported by unified, trusted data, actionable analytics power better decision-making to drive performance, profitability, and competitive advantage for organizations of all types and sizes.

Make sure the data behind your strategies is pointing you in the right direction. [Visit our website](#) for more information.

⁴ Gopal, Chandana; Schubmehl, David; Vesset, Dan. “Worldwide Business Intelligence and Analytics Tools Software Market Shares, 2016: Here Comes the Cloud,” IDC, June 2017.

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