Improving confidence by increasing understanding in information

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software

Abstract

As promising as business intelligence (BI) and performance management are to improving decision-making within the average organization, companies are often hampered in their ability to squeeze optimal value from their investments in these critical systems. Time and again, they implement the most accessible and rich solutions imaginable, only to be stymied by what seems to be a simple challenge: Confidence.

Organizations seeking to use their information as a competitive advantage need to:

• Enable people to be more informed with the most relevant information they require.

• Have them be more engaged with the information in ways that help them perform their everyday tasks.

• Ensure they are more aligned with each other across, up and down the organization and along the whole decision-making process.

CEOs, directors, managers and even rank-and-file workers are all challenged to understand and trust the available information to make intelligent decisions. To be usable, information must be consistent and timely. Only if the information is clearly understood and trusted can it be used to drive decision-making and overall business performance.

Not having sufficient confidence in the information affects the business on a number of levels. Users who don't understand the information in reports and analysis, and who are unsure about the meaning of the underlying data, resist using BI and performance management systems and instead rely on IT and related support teams to clarify meaning. If they lack confidence in the information, they will simply not use it and find other, less consistent ways to get the answers they need. If users fully understand the meaning, the source and the context of the information within a given report or analysis, and they trust the numbers they see, they will use that information to make business decisions.

Building greater confidence in the underlying data is easier said than done. The typical organization is home to a wide variety of fragmented data sources. Most users rarely have consistent access to these disconnected silos. Even if they do, the data may not be in a format that makes it easy to digest or use for further analysis. Improving confidence in the data is crucial not only to the success of your BI and performance management investments, but to overall organizational success.

Overview

In business, you're only as effective as the data you work with. Unfortunately, data doesn't always live up to its end of the bargain. Employees often have inconsistent access to disconnected data stores. Even when access is granted, the information typically exists in formats that make apples-to-apples comparisons and optimally precise analyses more difficult than they need to be. Externally sourced data presents challenges of its own, as it's also rarely in an easily usable form, and simply finding it can be a labour-intensive process that takes too long to justify the average employee's investment.

A recent IBM survey confirms the difficulties organizations face in building confidence in their information:

- 47 percent of users don't have confidence in their information.

- 59 percent of users say they miss information that might be of value to their jobs because they can not find it.

- 27 percent of managers' time is spent searching for information, but over 50 percent of the information they find is of no value to them.

Improving confidence, however, isn't a direct process for the following three reasons:

- **Understanding**. Users do not understand what that data means and where it came from in their reports and analysis.

- **Trust**. As they look at numbers, users are not confident that they are correct, and that quality can be sustained over time. They lack "information trust"-- the ability to establish a baseline for the quality of information and employ data integration capabilities such as profiling, cleansing and de-duplication.

- **Relevance**. Users need unencumbered access. They need to be able to quickly gather all the relevant information. Key enabling technologies include ETL, federation, change data capture and data warehousing.

Organizations with this baseline of data management maturity will get better value from their BI investments. They are also more likely to outperform organizations less mature in data management.

Business problems

Users must be able to look at report information, interpret it easily and with certainty, and understand where the data came from. With this user context, they have:

• Greater understanding of how the report relates to their issue.

• More confidence when interpreting the numbers.

• The ability to use the information to be more effective.

To do this, BI and performance management must adapt to the variety of users. Senior executives to business analysts, managers and everyday workers – all have different requirements for different types of data in to receive it in different ways. However, each user type wants information accessible in a timely, role-appropriate manner.

Similar needs exist on the systems side as well. Stakeholders are often forced to contend with fragmented, siloed data of questionable quality. Inflexible data, due to presentation or fundamental modeling, makes it difficult to dig deeper or analyze things from other perspectives. The resulting inertia limits employees from deriving the full value of corporate data to make effective business decisions.

Properly implemented BI allows users of all capabilities to model and reshape the data as needed to better support their specific requirements. While many BI and performance management implementations fail because they force end-users to modify their approach or thinking to suit the tools and technology, IBM gives users the flexibility to adapt the toolset to fit their needs. IBM Cognos Business

Intelligence and other performance management applications make internal and external information more consumable through an intuitive user interface and a process-based methodology that maps to underlying business needs. The net impact is three-fold:

- Organizations have a greater contextual understanding of where information came from and how it came to be. This improves confidence in the data.

- Business users at all levels of the organization have greater ownership of their data and are better equipped to manage the related business terms and structures. This enhances meaning and increases the likelihood that it will be used appropriately and effectively.

- The organization maintains a more consistent level of governance and control. This improves familiarity with the data and streamlines how it is managed internally.

The benefits of more consistent information oversight are especially relevant in financial services and health care industries that have a growing regulatory oversight. However, all organizations can benefit from a more methodical approach to using information and making decisions.
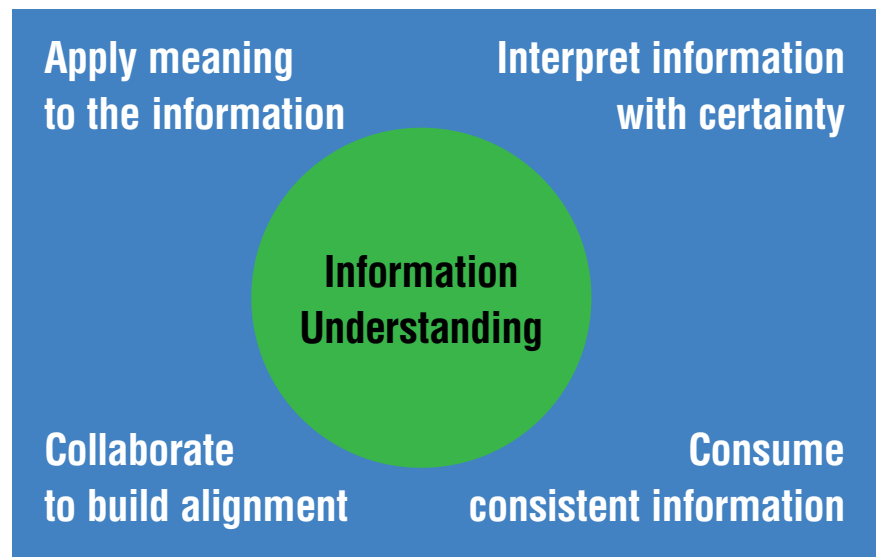
Business drivers

Organizations are challenged on two fronts, business and systems, as they try to deliver increased data clarity to their users. From a business perspective, the solution has to meet the needs of a diverse set of stakeholders. These stakeholders have different roles and different information reporting and analysis requirements. They require business-relevant information in specific formats and with varying timelines. A store inventory manager may need daily reports. A Web sales manager may need the same type of information hourly. User skill levels vary widely as well; a business analyst is typically more adept than the casual business user. However, with intuitive tools, IBM experience shows that casual users become power users as they see the value of BI-driven decision-making.

The systems themselves pose additional challenges. In anything larger than a small business, data tends to be stored in disparate and often incompatible formats, with inconsistent storage and management processes. Fragmented, low-quality data hampers users from receiving straightforward answers to straightforward questions. Compounding the heterogeneous nature of your data is the sheer volume of it and the fact that growth in that volume is increasing. If organizational data is going to be used with any sense of consistency, it must be consolidated from these disparate sources into a universally trusted form.

Solution

The first step to build business confidence is ensuring users across the organization understand the information they are seeing, and can see the difference between what is and isn't valuable to them. Greater information understanding encompasses these four key areas:

Apply meaning to the information

Interpret information with certainty

Information Understanding

Collaborate to build alignment

Consume consistent information

1. Interpretation

What it is

Interpretation is the ability to make decisions knowing they are based on clearly understood data.

Typical example

A returns manager, on reviewing a Returns by Order Method report that is updated on a weekly basis, sees that a particular product line has a high number of unsatisfactory product returns. The manager is unsure what Unsatisfactory Product actually represents, and where the number for these returns has originated from. As a result, the manager is uneasy about deciding on the course of action to correct the problem.

Why it matters

When business users look at a report, they need to be able to interpret the information with certainty, and be able to easily understand what the data means and understand where the information has come from. BI and performance management environments let organizations interpret information consistently by applying standard business definitions to the terms used. This bolsters end-user confidence that they're comparing apples to apples when working collaboratively. Business-appropriate language and labelling further enhance usability by mapping more closely to the needs of those who are doing the analysis. Improved transparency helps stakeholders know where information comes from and its context in a given dataset for analysis.

The IBM Cognos BI and Performance Management Advantage

Because they have access to tools that adapt to their specific roles and enable greater data transparency for a broader business audience, users have a much deeper understanding of where the data comes from and how it came to be there. This allows them to reach well beyond a given report and connect with the data sources as necessary to further refine their analyses. This enhanced confidence allows them to build better, more comprehensive reports. More importantly, it drives better decision-making because users have a better understanding of the underlying data, and can more easily manipulate it to generate more effective reports.

2. Consistency

What it is

Consistency means confidence that the same information is used for decisions across all areas of the business.

Typical example

A group of cross-department managers meet to discuss how to increase margin and reduce product costs. Each manager has prepared reports to share at the meeting. Everyone has different numbers leading to disagreement and confusion. The managers engage in a time-consuming debate over whose numbers are right. This leads to a delay reaching consensus and decisions on how to increase margin and reduce costs.

Why it matters

There must be consistency in the information so all users within a given organization – wherever they are, whatever language they speak, whatever skill set they possess – can collaborate to make effective decisions. If not, stakeholders spend more time debating different numbers, where they came from and how they came to be included in a given report, and less time actually making critical business decisions.

The IBM Cognos BI and Performance Management Advantage

IBM Cognos software encourages data consistency – a single version of the truth – through a common data and business rules framework. It applies a centralized metadata model as well as consistent business rules, dimensions and calculations to all data, regardless of source. This allows BI to meet fast-changing business needs in a precise, time-sensitive, user-friendly manner.

3. Collaboration

What it is

Collaboration is the ability of business users to take action and make decisions based on a shared, mutual perception of information.

Typical example

After receiving a regular monthly report on Product Returns – classified as unsatisfactory product for Web-based orders – a departmental manager notices an unexpected increase in these returns. The manager has begun taking the necessary steps to correct the problem unaware that another team member has also spent considerable time evaluating and addressing the problem.

Why it matters

One level of collaboration involves stewardship among business users and IT to gain agreement on what specific terms mean. How do you define a month? When does it start and stop? Does it include weekends? Misaligned data definitions in terms as simple as these and sink a BI deployment.

On another level, collaboration refers to how users interact with the information. As different people see and share data, they need to be able to capture additional insight and commentary from colleagues across the business. With consistent information as the basis, this multiplies the analytical power of the organization. Users can share insights and decisions, and work collaboratively to build alignment. Enhanced collaborative capabilities also encourage more efficient use of resources and improve the organization's ability to capture deeper insight from a broader set of stakeholders. This reduces risk through automated workflows that minimize the potential for errors due to manual workarounds.

The IBM Cognos BI and Performance Management Advantage

Auditable and transparent collaboration allows everyone to see everyone else's influence on a given decision. Audit trails make successful decision-making processes repeatable, capitalizing on lessons learned along the way. You reduce the risk of failure by replacing manual, error-prone processes with automated ones. You improve decision-making quality by including insight from all relevant participants.

4. Meaning

What it is

Meaning is the business user capability to create, organize and manage information to drive actionable, business-relevant decisions.

Typical example

You are launching a new product into the market and that is initially being sold by a select group of sales executives who have been brought together to orchestrate the launch. To measure the launch's success and validate the value of the product, you need to monitor initial sales and activities. Unfortunately, the reporting is proving to be complex and difficult as the existing reporting structures do not reflect this special project.

Why it matters

To ensure the business has understanding, users must have a say in how they shape and use the information. This includes establishing the hierarchies or attributes to organize the information in ways that encourage easy consumption through consumable formats that enable business decisions

The IBM Cognos BI and Performance Management Advantage

Information is specifically managed to be business-centric, using terms and structures that make sense to business users and meet the specific needs of all areas of the organization. These information management processes adapt to the business workflow – an important factor in ensuring all stakeholders adopt the tools and derive optimal value from them. Greater meaning, transparency and availability of data drive widespread use of this capability, thus ensuring optimal decision-making at all levels of the organization. A common enterprise vocabulary encourages continued collaboration, improves decision-making consistency and, most importantly, allows each business area to respond to rapidly changing internal and external business requirements. This evolved level of agility further improves organizational competitiveness by allowing all stakeholders to rapidly engage in whatever scope and breadth of analysis is required by a given scenario.

The net effect is positive all around for business areas that buy into the framework. Their information aligns more closely with their needs, which improves overall confidence, which enhances their data stewardship efforts. Business controls the language of BI and performance management and owns its own perspective, which allows users at all levels of the organization to analyze a wider range of scenarios. You can use data more often and more consistently to drive improvements in decision-making timeliness and precision.

By utilizing the key capabilities of IBM Cognos software and IBM InfoSphere software, the business can receive the information it needs. This information is structured to run the business and not presented in its raw, initially captured form. It is available in a timely manner for users to make better business decisions. This is achieved through a flexible, scalable platform that can address the variety and specificity of business roles and allows these users to manage how they access and use the information. It is accomplished with:

- Business intelligence to provide business users with the information they need to understand, oversee and drive the business.

- Data integration to ensure organizations standardize on a consistent view of information across their business.

- Content management for document and process control, and with the hardware foundation to ensure delivery at a cost that is reasonable to achieve.

IBM provides market-leading capabilities in each layer for a modular approach, with the openness to embrace existing infrastructure standards, and the integration to deliver greater value when combined together.

IBM provides one-click access from within reports to see contextually the underlying data, outline its lineage and highlight its source. It also accommodates the varying skill levels of users, from the power user who slices and dices data to build complex forward-looking models to the more casual user who simply wants quick answers to help everyday business decisions.

On the system side, IBM streamlines back-end data management and reduces complexity for all stakeholders – whoever they are, however many data sources they're working with, and wherever that data originates.

This unique approach makes IBM Cognos software an ideal solution to extend BI and performance management beyond its traditional base of power users and senior executives. By leveraging more consistent BI use throughout the organization, companies realize more return on investment for their BI-related projects. Operationally, wider availability of BI drives improvements in the quality and timeliness of decision-making. For the average business user long accustomed to either relying on others for information or independently building standalone solutions to get answers, it changes the game.

Conclusions

Business success is driven by decisions, and good decisions are driven by good information. The confidence that stakeholders at any level of the organization have in their information is based on the following requirements:

- **Information understanding**. The information has to make sense in the broader organizational and market context, and it has to be used consistently to establish a baseline of understanding.

- **Information trust**. Low-quality data leads to low confidence in BI deployments and outcomes. Stakeholders must have an unhindered, transparent view of where the data comes from. Better visibility helps data quality improve over time.

- **Information relevance**. Once you have quality reporting, it must be distributed to the various audiences in appropriate formats and at appropriate times. Otherwise, even the best ideas will never see the light of day.

For many organizations, decision-making is a hit-and-miss proposition. Employees lack confidence in the data they receive.

Stakeholders must understand at a role-appropriate level what the data means, where it comes from and its relevance to the task at hand. This allows them to make better decisions without consuming scarce IT and administrative resources in the process. IBM Cognos software and InfoSphere software provide organizations with the capability to address information understanding and improve it. This will improve overall business performance.

Organizations are moving away from informal, user-driven data management solutions toward greater context and consistency of usage. This raises confidence among business users that the same information is used across the organization to make decisions. A more consistent baseline for leveraging cross-organizational data also raises understanding and helps improve decision-making. Individuals and teams can more easily collaborate with commonly shared and understood information and they are better equipped to analyze it for business opportunities.

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About IBM Cognos BI and Performance Management

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