

“One Source of the Truth”: Common BI Terms Defined

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Summary:

I am always dismayed when reading articles and analyst reports that include a statistic of the percentage of Business Intelligence (BI) initiatives that fail or do not meet customer expectations. Most of those articles and reports go on to describe the now, well known, reasons for why these types of initiatives fail including, lack of high-level sponsorship, poor data quality, low level of functional participation, unacceptable query response times, etc. What I never see mentioned, but often see in practice, is the incompatibility between the requirements and the implemented architecture in consultant led initiatives. How does this happen when nearly every consulting organization has a BI implementation methodology and experienced resources in implementing BI programs? While there are many causes, one often overlooked reason is the inconsistency in how BI consulting companies define the basic BI concepts. Many times, the definitions depend on which consultant at the company you ask. I have yet to find these definitions posted on even the largest BI consultancy websites.

Why this is such an issue? This can cause a wide variation in the architecture that is conveyed during an assessment by senior level consultants and what is ultimately implemented. In order to eliminate any inconsistency in our definitions of the concepts of BI at Datasource, below is a list of our agreed upon definitions. Please feel free to use these definitions in your own program and/or to provide information on how we view these concepts prior to meeting with us about helping your organization implement a successful, scalable and maintainable BI program.

BI Definitions

Business Intelligence (BI)

The process, architecture, technologies and tools that help companies transform their data into accurate, actionable and timely information and disseminate that information across the organization. It includes, but is not limited to, data modeling, data warehousing, data marts, metadata, master data management, data cleansing, predictive analytics, reporting, analysis, alerts, dashboards and scorecards)

(like terms: Decision Support System (DSS))

Business Performance Management (BPM)

A framework that optimizes the execution of an organization’s strategy consisting of a set of integrated processes, supported by technology, such as performance dashboards, data warehousing, analysis and reporting, that enables organizations to communicate, monitor, measure and manage performance against goals. (10 Mistakes to Avoid When Implementing Business Performance Management by Karen Degner, TDWI Research)

Dashboards & Scorecards

Multi-layered performance management systems, built on business intelligence and data integration infrastructures, that enable organizations to measure, monitor and manage business activity using both financial and non-financial measures. Dashboards tend to monitor the performance of operational processes whereas scoreboards tend to chart the progress of tactical and strategic goals. (Deploying Dashboards and Scorecards by Wayne Eckerson, TDWI Best Practices Report)

Data Warehouse (DW)

An integrated, non-volatile, time-variant, collection of data organized to support management needs. (Database Newsletter, July-August 19992, W. H. Inmon)

Data Mart (DM)

A subject oriented collection of data that may be integrated, non-volatile, time-variant and/or summarized to support the organization. (W. H. Inmon)

Data Quality

The accuracy of data stored, reported and analyzed by and an organization in relation to the exactness and correctness of the data.

- Exactness refers to how well the data which is stored matches to the original source of that data. (i.e. a customer reports their name as ABC, Inc and it is stored as ACB.)
- Correctness refers to how close the data which is stored or reported matches to the business meaning of that data. (i.e. a customer master field stores the customer type of a customer as P and on a report it classifies it as Pertinent instead of Public.)

Extract, Transform and Load (ETL)

The process used to migrate data from a data source to a target. It often involves converting the source data into a form required for the target, which may involve filtering, sorting, joining, translating, deriving, transposing, summarizing and/or denormalizing. With regard to Business Intelligence (BI), it is generally used to populate an Operational Data Store (ODS), Data Warehouse (DW) and/or a Data Mart.

Master Data Management

It is the practice of defining and maintaining consistent definitions of business entities, such as customers and products, then sharing them via integration techniques across multiple IT systems within an enterprise and sometimes externally. (Master Data Management: Consensus-Driven Data Definitions for Cross Application Consistency by Phillip Russom, TDWI Best Practices Report)

(like terms: Customer Data Integration (CDI))

Operational Data Store (ODS)

A subject oriented integrated, current, volatile collection of data used to support the tactical decision-making process for the enterprise. (W. H. Inmon) It can be used as a staging area for populating a data warehouse or a data mart.

Predictive Analytics

A set of Business Intelligence (BI) technologies that uncovers relationships and patterns within large volumes of data than can be used to predict behavior and events. (Predictive Analytics: Extending the Value of Your Data Warehouse Investment by Wayne Erickson, TDWI Best Practices Report)

(like terms: Data Mining)