: How is data management linked to analytics and decision support?

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Data management or data resource management refers to activities and tasks associated with capturing, organizing, securing, storing and retrieving data. Tasks include defining a data architecture and purchasing appropriate hardware and data management software. Activities include establishing, enforcing and monitoring practices, procedures and policies related to capture and storage. Managing the lifecycle of data from capture to archiving is an important part of data management. Effective data management leads to more accurate and complete analytics and better decision support applications.

Organizations need an enterprise data strategy and effective data management to provide decision support analytics. Establishing a direct causal link between data management, decision support and profitability is challenging and likely impossible. It is possible to identify examples where poor data management led to decision support problems and examples where poor or absent decision support harmed profitability.

Both metadata and master data management are important for decision support. Metadata is data about what data is stored and how it is stored in a database or data store. There are two types of metadata: 1) descriptive metadata and 2) structural metadata. Descriptive metadata includes field names, table names, and data types. Structural metadata are data about the containers of data, e.g., a container is a class, a data structure, or an abstract data type. Metadata summarizes what is known about the data in a data store like a relational database. Good metadata makes finding and working with particular instances of a data store much easier.

DAMA International (http://www.damauk.org/) defines Data Resource Management as "the development and execution of architectures, policies, practices and procedures that properly manage the full data lifecycle needs of an enterprise."

Master data management (MDM) tries to insure uniformity in data definitions and data naming. Data accuracy is also often part of master data management processes. Issues of data ownership are also often resolved by master data management processes.

According to SAS, "If your data management efforts are successful, then the operational and analytical systems that drive the business will be more successful." In general, data management

technologies and processes help provide accurate and reliable data to support decisions making.

Excellent data management is a prerequisite to effective analytics and decision support.

References

SAS, "Data Management: Manage your data as a valuable resource," at URL http://www.sas.com/en_us/insights/data-management/data-management.html.

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