

Leading IT Innovation to Improve Data Quality, Efficiency, and Performance



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Outline

- Why Data is Critical
- Mission Data
- Government's Role in Data for Societal Performance
- Performance Data Issues

Why Do We Need Data

- Obvious Answer – To Measure Performance
Data is Required
- To Manage and Perform the Mission of the
Organization
- Forgotten Answer – To Understand
Performance At Multiple Layers

Mission Data and Data Management

- Most Data is Not “Strictly” Performance Data
- The CIO is too often IT and not enough I.
- TCO of Data vs. Systems and Technology
- Master Data Management

Data Quality - Managing Attributes

Characteristic	Examples
Accurate	Information is error free. For example, hourly wage amount to be used in paycheck calculations must be accurate.
Complete	All aspects of information are stored. For instance, good faith estimate of home purchase price by law must be complete.
Economical	Information needs to be maintained on reasonably priced media. Survey information represents population but was gathered at a lower cost from a percentage of total population.
Precision	A measure of the level of accuracy. E.g. is something accurate to the penny or to the dollar?
Flexible	Information has been stored in a way to ensure future uses might be developed. For example, data in a spreadsheet can be used to calculate additional values.

Data Quality - Managing Attributes

Reliable	Information can be trusted with no redundancy or anomalies. A price quotation that comes from reputable vendor is an example.
Relevant	Information reflects true situation. An example is a simulation model of automated guided vehicles which needs to know vehicle loading times, not the cost of electricity.
Simple	Avoids information overload. For instance, year end inventory report contains key figures and summarized information.
Timely	Information arrives when needed. Month old stock prices might not be a good indicator of today's prices.
Verifiable	Information can be checked. For instance, average home price in an area can be verified by checking with Chamber of Commerce and various realty agents.
Accessible	Managers may query database to retrieve the information. A planner queries inventory database to determine amount of wood screws in stock.
Secure	Information is kept in a password-protected database management system. A disgruntled ex-employee is unable to access system and destroy information.

Government's Changing Role in Data

- Authoritarian
- Suppressor
- Interpreter
- Provider
- Authoritative

Performance Data Issues

- Output, Context, Outcome All Are Valuable Perspectives and Related Data
- Where Are We Spending Investments Today?
- Where Should We Spend Investments?