DataGovPM: Improving Data Governance Performance

Data governance consists of a set of processes and supporting information technologies for managing the critical data assets for a business or government organization. Data assets need to be managed actively to further key business objectives.

For example, minimizing errors in, and tracking provenance of, data is a critical prerequisite for making sound organizational decisions that reduce risk and leverage opportunities for growth. Similarly, limiting access of sensitive data to authorized parties is essential to meeting regulatory requirements and respecting stakeholder privacy, both of which preserve brand integrity and minimize potential for adverse litigation.

Performance Management (PM) refers to how organizations leverage resources to achieve their goals. PM methods work by (1) measuring your organization's performance against relevant metrics; (2) diagnosing shortcomings and setting targets; (3) developing plans to improve performance; and (4) executing those plans.

Our Data Governance *Performance Management (DataGovPM)* solution applies PM methods to improve Data Governance management. DataGovPM helps you:

- **Measure your Data Governance performance against industry best practices**
- **Design plans for improving performance**
- **Test and validate or refine your plans using powerful simulation methods**
- **Monitor results during plan execution, so that you can detect emerging problems early and make prompt mid-course corrections to ensure success.**

Performance Measurement is Necessary But NOT Sufficient.

The first step to improving Data Governance management is to measure your current performance. DataGovPM leverages a measurement framework developed by the IBM Data Governance Council called a Capability Maturity Model (CMM). A CMM is a process improvement methodology.[1] It defines a set of metrics for measuring organizational competency or maturity in terms of a set of recognized best practices and skills. Metrics are, organized into categories and quantified on a performance scale. Rating criteria allow organizations to benchmark their performance against these "maturity" levels.

The core problem with CMMs is that they are inherently static; you apply a CMM to measure performance at discrete instants. Such exercises enable gap analyses against industry best practices, but are not directly actionable: a CMM provides no support for formulating plans to improve your maturity levels, much less for testing them prior to roll-out *or* monitoring their execution and making appropriate mid-course adjustments. In short, a CMM only supports the initial diagnostic phases of PM; you are on your own to address the back-end PM processes that actually drive performance improvement!

Overview of DataGovPM

DataGovPM extends the IBM Data Governance Council's Data Governance CMM[2] to resolve these problems, using an intuitive Model-Simulate-Analyze process. Although our software tool is easy to use, many of the tasks involve considerable Data Governance expertise. DecisionPath works with qualified consulting partners to deliver DataGovPM as a software-enabled service.

Model This phase measures your performance against IBM's Data Governance CMM. This activity involves determining whether or not your organization carries out various Data Governance practices. Examples include assigning responsibilities and certifications for managing risks, and managing data models, metadata, and business intelligence analytics. Various sets of practices map into metrics and objectives, such as ensuring that information assets are identified, well defined, and catalogued. Metrics and objectives, in turn, are grouped into eleven categories of metrics called domains, including Risk, Asset, Response, and Workforce. The DataGovPM

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[1] Capability Maturity Models were first developed by the Software Engineering Institute at Carnegie Mellon University to aggregate and organize practices for improving the management of software development projects. This approach has subsequently been adapted to other human resource issues (e.g. employee retention), cyber security, and other management challenges.

[2] The original model, including the original self-assessment survey can be viewed at http://www.infogovcommunity.com/

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software computes your scores for each objective and domain using maturity indicator levels (MILs) ranging from 1 (lowest) to 5 (highest). The next step is to define desired target MIL scores for the CMM domains. The third modeling activity is to formulate maturity improvement plans for achieving your goal maturity levels. This step involves defining a set of initiatives and constituent tasks to establish relevant practices, defining schedules for putting those practices in place, and estimating the costs required to develop <u>and</u> sustain those practices.

Simulate DataGovPM contains an innovative "what-if" simulation engine that projects the outcome of your organization's improvement plan over time. Simulations typically span one to three years, in monthly increments. Plan initiatives improve performance by implementing CMM practices, which advances metric MILs over time, etc. The tool estimates Return on Investment based on projected maturity improvements the aggregated costs of executing your plan.

Analyze DataGovPM incorporates analytic tools for analyzing the projected outcomes of your performance improvement plans. Outputs include summary reports and graphic plots such as time series and radar charts. These outputs help you to visualize what maturity increases were achieved through your plan, when, and how.

DataGovPM's model-simulate-analyze process uncovers plan deficiencies early, when they can be corrected easily. This is critical because IBM's Data Governance CMM is comprehensive, encompassing dozens of practices. It would be virtually impossible to test a complex performance improvement plan without simulation.

DataGovPM enables you to test and refine your PM plans, attending to practices you originally missed; mitigating unintended negative consequences; and balancing resource allocations and schedules to tune costs and benefits.

You can apply DataGovPM anywhere in the PM lifecycle. The natural first step is to apply the tool to test and validate or refine your plan prior to roll-out. However, it is equally important to apply DataGovPM again, while you execute your plan.

Data Governance is highly dynamic: maturity improvements start accumulating; and data governance requirements evolve (e.g., changing budgets, technologies such as social media and big data, regulations) and stakeholders respond to your improved practices (e.g., hostile hackers adapt). It is crucial to update your CMM scores periodically, and re-project the outcome of your improvement plan into the future. Used in this mode, DataGovPM acts as a monitoring tool and Early Warning System, enabling you to detect emerging implementation problems early, diagnose them, and make mid-course corrections to ensure continued success.

Bottom line:

DataGovPM transforms Data Governance Capability Maturity Models from a static benchmarking exercise into a dynamic performance management process. DataGovPM drives continuous improvement by enabling you to test, validate, refine, monitor, and adjust your Data Governance strategies across their full lifecycles. DataGovPM reduces your exposure to critical risks and positions you to better exploit business opportunities by helping you adopt and sustain best practices in a timely and cost effective manner.

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