

White Paper

Data Management Maturity (DMM)SM & Risk Assessment Management Effectiveness





Data Management Maturity (DMM)SM

The 2008 collapse of the financial markets brought risk management to the front and center of economic stability. Enhancing the risk management function and reporting to the level now required to maintain that stability is expensive in time, money and resources. It is not surprising that our largest financial institutions are struggling to achieve this objective.

Risk management within financial institutions primarily focuses on two types of risk—credit risk and market risk. Effective risk management requires trusted data on legal entities, credit quality, financial instruments, and pricing. However, the creation, maintenance, and consumption of this data is pervasive across multiple business processes and largely uncoordinated. As a result, aggregating data for risk reporting is inefficient, not easily adaptable, and prone to defects. Clearly, data management issues are a root cause of obstacles to effective risk management.

Key Challenges to Risk Management

REGULATORY REPORTING

Financial institutions have been faced with increased regulatory obligations; MRAs, MRAs, CCAR, and BCBS 239 are prime examples. Aggregation of quantitative data is the common thread, and costs are mounting because data aggregation is expensive.

Tangible Costs

- » **Align system architectures—consolidating and streamlining data movement and point-to-point interfaces without compromising content quality**
- » **Profile and remediate data content, and implement ongoing quality assurance**

- » **Document and automate data flows—map sources to targets, document data lineage**
- » **Architect, design, and implement data stores and reconcile data representations**

Intangible Costs

- » **Confirm shared understanding of regulatory requirements**
- » **Agree on standards, data sets, and data element meaning and values**
- » **Agree on authoritative data sources**
- » **Agree on names and business rules for calculations**
- » **'We don't know what we don't know'—hidden risks**

The spirit of the current regulatory environment clearly indicates that firms are expected to make significant and lasting improvements to the management of data assets across the entire organization. This is an industry-wide effort to avoid the recurrence of the collapse of the financial industry.

ENTERPRISE DATA MANAGEMENT

Regulators know they are causing costs to mount; however, they have no desire to put our industry out of business. Building point solutions for specific requirements is a narrowly conceived and piecemeal approach that introduces further complexity. However, effective data management is only made possible by reducing the complexity of the environment.

To this end, firms must leverage regulatory requirements as a catalyst for real and lasting changes—this is an opportunity to directly and positively impact the business strategy. Key business benefits include:

- » **Timely and accurate risk reporting (data quality, version control, timeliness, currency)**
- » **Clarification and agreements for standard risk calculations**
- » **Data lineage and drill-down (documented justification upon audit)**
- » **Data integration (well-organized, streamlined risk data marts, avoiding reconciliation and manual processes, etc.)**

DATA MANAGEMENT AND RISK CONTROL

In June 2012 the Basel Committee on Banking Supervision (BCBS) issued the consultative document “Principles for Effective Risk Data Aggregation and Risk Reporting”, now commonly referred to as BCBS 239 or RDA. In addition, the BCBS published the document in the form of a survey to enable firms to evaluate their current state.

It is important to appreciate that the RDA survey is not a risk management framework; the statements have no context to assist in interpretation, i.e., technology, risk, and data management concepts are often addressed within a single RDA statement. Firms have considerable latitude in determining what is needed for compliance, which leads to inconsistent results.

Data management is a complex problem for organizations. It has been considered as a necessary cost of doing business, rather than the means to gain efficiencies, lower costs, and achieve competitive advantage. This perception is largely due to lack of a common understanding and approach. This has resulted in ad hoc practices performed in isolated projects, lack of top-down technology planning, and a fragmented data layer. Therefore, many manual workarounds and duplicative efforts are conducted to maintain the quality and flow of data.

In response to this industry need, the CMMI Institute published the first edition of the Data Management Maturity (DMM)SM Model in August 2014. The DMM is the result of 3.5 years of collaborative development among many data management experts. The content incorporates CMMI Institute’s extensive and world-class experience in reference model design—leveraging the proven approach and architecture of the Capability Maturity Model Integration (CMMI)[®], which has improved software engineering practices for over 10,000 firms. As a result, the DMM is accessible, reasonable, and can be consistently interpreted and applied to any organization in any industry. This is important for tracking an organization’s progress over time as well as for benchmarking and audit purposes.

Many Globally Significant Financial Institutions (G-SIBs) have already employed an earlier version of the DMM for BCBS 239. Since G-SIBs are required to implement the BCBS 239 principles in full by the beginning of 2016, there is increasing urgency to assess the current state and to formulate a compliance plan. Since the BCBS will continue to monitor banks’ progress towards meeting this deadline, there is a need for a sound, consistent measurement instrument that can definitively demonstrate progress.

BCBS 239 makes numerous references to data management concepts. Of the 61 specific statements in the RDA survey, 16 of them make no reference to data management. The remaining 45 statements correspond to the following list of data management concepts, processes, and practices. These are addressed in detail in the DMM:

- » **Data Management Strategy**
- » **Data Governance**
- » **Data Management Function**
- » **Provider Management**
- » **Business Case**
- » **Data Lifecycle Management**
- » **Architectural Standards**
- » **Data Requirements**
- » **Data Cleansing**
- » **Data Quality Strategy**
- » **Business Glossary**
- » **Metadata Management**
- » **Data Quality Assessment**

For the complete list of practice areas included in the DMM, see **Figure 1**.

FIGURE 1: DATA MANAGEMENT MATURITY MODEL PRACTICE AREAS

DATA MANAGEMENT STRATEGY
Data Management Strategy
Communications
Data Management Function
Business Case
Funding
DATA GOVERNANCE
Governance Management
Business Glossary
Metadata Management
DATA QUALITY
Data Quality Strategy
Data Profiling
Data Quality Assessment
Data Cleansing
DATA OPERATIONS
Data Requirements Definition
Data Lifecycle Management
Provider Management
PLATFORM & ARCHITECTURE
Architectural Approach
Architectural Standards
Data Management Platform
Data Integration
Historical Data, Archiving & Retention
SUPPORTING PROCESSES
Measurement and Analysis
Process Management
Process Quality Assurance
Risk Management
Configuration Management

Implementing Data Management to Improve Risk Management Effectiveness

ASSESS THE CURRENT STATE

While the end goal is to design and implement a target state environment that will satisfy risk reporting requirements, without employing a comprehensive reference model / framework, it will likely be incomplete and result in unrealistic estimates of time and effort. The DMM addresses these issues from a data management perspective, providing clarity and acceleration for the most complex aspect of risk management objectives.

Chief among its many benefits to an organization, the DMM pinpoints both strengths and weakness that may otherwise go unnoticed. This analysis is key because hidden factors—whether strengths to leverage or gaps to address—can slow down or derail progress.

An objective, detailed assessment of capabilities greatly facilitates the creation of a practical plan for critical path milestones on the way to real and lasting improvements.

The process of conducting a DMM assessment is also a powerful catalyst for positive organizational change. When employed with a representative group of key stakeholders, it provides a common language, an educational experience, and consensus and agreement about capabilities across the organization.

Participants gain a detailed understanding of their responsibilities for building and controlling the data assets. The results of the assessment allow an organization to identify what capabilities are critical to enhance, define actionable initiatives to implement them and develop a data management strategy.

IMPLEMENTING THE FUTURE STATE

A DMM assessment results in a clear, mutual understanding of the priorities for capability enhancements. It provides:

- » A heat map across the entire organization
- » A natural sequence plan for implementation initiatives, encompassing:
 - Data sets (subject areas)
 - Disciplines (processes and work products)
- » A strong foundation for facilitating the creation of a unified, organization-wide data management strategy
- » The collective will to implement it

Establishing a data management strategy immediately following a DMM assessment is highly recommended. Since the strategy is anchored in business goals and objectives, it will ensure that implementation and technology selection decisions are aligned to the business direction.

The DMM Assessment is a critical first step in synthesizing a strategic, cohesive, organization-wide program, which not only satisfies risk reporting requirements, but serves as a catalyst and guide for positive improvements across the full scope of data management. The assessment also serves as a baseline to measure improvements being made and demonstrate them to auditors. This approach embodies both the letter and the spirit of the current regulatory environment, and will lead to increased efficiencies and lower costs.

Begin Your Journey With The DMM

DMM is delivered by the CMMI Institute—we advance the state of organizational capability measurement, accelerate the development and adoption of associated best practices, and provide new and evolved solutions to meet the emerging needs of businesses around the world.

To Learn More About Data Management Capabilities, Visit: CMMIINSTITUTE.COM/DMM

For Questions Or To Schedule A DMM Assessment, Contact: INFO@CMMIINSTITUTE.COM

