

# Enterprise Risk Management and Data Quality

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Globalization, more regulations and mandates mean enterprise risk management is becoming an ever more important function in financial institutions.

Risk management has always been high on the agenda for financial institutions, but the increasing array of mandates and regulations that have emerged in recent years are causing banks, asset managers and insurance companies to look at risk in a new light. Instead of managing different types of risk such as market risk, credit risk and operational risk as separate silos, financial institutions are bringing them together under a single enterprise-wide framework.

High-quality master and reference data are central to the success of an enterprise risk-management strategy. Each of the components of enterprise risk requires different levels of data input. Credit, market and underwriting risk analyses demand huge amounts of data in most financial companies. Operational risk, in contrast, requires much less data so far, because it is an evolving discipline. This raw data is transformed via risk methodologies into usable information that, in turn, creates more data that needs to be managed and measured.

### More Data and More Systems, Means More Risk

The universe of data that has relevance to an institution's analysis of risk is growing all the time. More data from more source systems is being used to drive risk calculations, forecasting, business intelligence and corporate performance management. In order to better manage risk, corporations need to bring together data from systems that in the past operated as silos and have seemingly little or no relation to each other. This data consolidation is driven as much by the changing business environment as by anything else. Globalization is a powerful force that is supported by technology, yet hampered by our ability to handle master data and manage data quality.

Risk data needs to be enterprise-wide and tied in to all aspects of customer, commercial, financial and operational data at the lowest level of detail to

enable necessary statistical analysis. The data is not static. Information about instruments, counter parties and market events are constantly changing and those changes need to be reflected accurately throughout the risk management infrastructure.

In many cases the level of data quality in source systems is unknown. But even when it is of the highest quality and has been judged to be fit for the purpose it was gathered, it may not be of high enough quality for the more data-intensive task of risk analysis. At the same time, the very act of bringing data from different transactional systems, involving different product lines and from different geographies can highlight lack of alignment and poor harmonization across relevant master data.

As such, the risk data warehouse or data marts can be left with major holes in terms of consistency, conformity, accuracy and integrity.

### Enterprise Data Quality for Enterprise Risk

To address the problem of master data quality, financial institutions need to think about data quality in the same way as they are thinking about risk—at an enterprise level. In many large organizations today, data quality activity is disjointed and varies across departments, lines of business and geographies. The roles and skills of individuals participating in data quality improvement projects also vary, ranging from clerical to manager level and from business to IT-centric teams. The objectives of projects are occasionally long term and strategic in nature, but most often they are reactive and tactical—addressing localized data quality issues as they occur.

While the tactical approach may mitigate the problem for part of the organization in the short term, such limited initiatives generally fail to

Figure 1. Extended Data Quality Metrics



achieve long-term data quality improvement on a broad scale, and are likely to have little impact on enterprise risk.

Achieving high-quality data can be thought of as a multi-stage process—an organization first needs to measure and understand its data quality levels today, then it must clean up the data already in use, stop low-quality data from getting into systems, and remember that data quality is a never-ending undertaking. Having a proven enterprise-wide plan to address data quality issues is the key to ongoing success. Like a pet, data quality is not just for the holidays—it's for life. It is not an exercise that can be completed once and then forgotten about. The problem with data is that its quality quickly degenerates over time, and the problems associated with bringing master data together from multiple sources are not going away anytime soon.

### People, Process, Technology

A complete enterprise plan for data quality improvement should focus on three critical elements:

**People:** Building awareness, getting business people as well as IT people involved and having clear lines of ownership for data and executive sponsorship for data quality.

**Processes:** Establishing a standard and repeatable process for addressing data quality across all systems that includes ongoing monitoring based on well-defined and understood definitions and metrics.

**Technology:** The judicious deployment of a combination of technologies including profiling, matching, content analysis, parsing, standardization and consolidation.

To get the best results from a data quality initiative, the organization needs to address all of the above aspects of the data quality program.

It also must address data quality right back to the relevant source systems—not just at the risk data warehouse. Cooperation between the business groups and IT organization is also essential. Data is where business and IT should connect.

### Data Quality Metrics and Monitoring

To ensure that business and IT can work together to deliver the highest levels of data quality to the business, we need a common language for reporting, measuring and monitoring levels of data quality across the enterprise. Standardized data quality metrics and monitoring processes are powerful drivers of ongoing improvement of data quality at its source, providing the information needed to change the business processes and work practices that are enabling poor quality data to get into the system in the first place. This approach provides everyone with a unified view of data and data quality and can also provide the basis for regulatory reporting in certain circumstances such as Basel II where there are specific data-quality reporting requirements.

### Risk, Data Quality and Value

Enterprise risk management is not just about complying with regulations or hedging investments. It can change how an organization does business and bring significant advantages beyond capital allocation. The companies that have adopted enterprise risk management methodologies report fewer failed ventures and less damage from adverse events. In addition, the disciplines that go hand-in-hand with risk management, including data quality management, offer even wider benefits. Improving enterprise data quality will help cut costs, improve effectiveness and streamline operations in all departments from sales and marketing to IT.

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