

# Clean and Transparent Ethical Approach Using MDM to Understand Your Customers



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## Abstract

In this paper, I argue that almost all the organizations worldwide that are running IT application systems for the past several decades have issues with integrity of Master Data. These issues arise due to several reasons ranging from multiple applications with masters running on disparate platforms that do not cross-validate master data to duplicate data entry by users due to lack of data governance processes in place. The critical business areas that can impact a business are your customers, products that are manufactured and marketed by the company and vendors that supply the material. Hence MDM in any of the above mentioned areas is critical to an organization. In measuring and publicizing MDM results at the time of preparing a compelling business case for MDM, one should study the existing shortcomings caused by inconsistent master data and the losses incurred. Such losses may include lost revenue, lost goodwill etc. One should build measurable ROI, and then track those parameters against the metrics once MDM is implemented.

**Keywords:** MDM, ROI, Customers, Data Quality

## Introduction

In computing, master data management (MDM) comprises a set of processes and tools that consistently define and manage the non-transactional data (often Dimensional Modeling - Dimension of a cube and not a Dimensional Modeling - Fact Table) entities of an organization (also called reference data): customer, product, asset, person or party, supplier, financial masters MDM has the objective of providing processes for collecting, aggregating, matching, consolidating, quality-assuring, persisting and distributing such data throughout an organization to ensure the Data Quality - Metrics (as consistency) and control in the ongoing update and application of this information. Master Data Management projects can be complex undertakings that require significant effort and expense. Many times a project can be broken down into smaller atomic implementations; a phased approach to a master data management project can provide opportunities to test assumptions related to data quality as well as potential ROI. Multiple phases also provide an organization the opportunity to apply lessons learned from initial phases to all later stages of development.

## End-To-End Data Quality

Data quality tools are applied on data as it is held in databases, as it is moved, and as it is entered. The value of the data quality spirals up as the number of places it can be brought to bear upon increase. The data integration technology is ETL. Most data quality tools can clean up the data in the applications and in databases such as a data warehouse or an MDM Hub. Oracle's MDM DQ tools can do the same.

## Aim of the Study

A MDM solution works basically at two points: creating, maintaining and leveraging a single, trusted, shareable view of the truth while keeping multiple source silos in synch in a BPM / real-time fashion. However, most large enterprises have a heterogeneous application portfolio, with fragments of often inaccurate, incomplete and inconsistent data residing in various application silos. No comprehensive system contains the single view or is designed to manage the complete life cycle of the master data. The MDM product trends to improve data Data Quality - Role (data steward) and governance facilities, including data quality profiling, dashboards and reporting

**Implementing MDM**

The Organizational Impact MDM is a set of business processes and techniques. Accordingly, MDM initiatives must be characterized as business driven in their orientation and not perceived as IT infrastructure enhancement projects. Successful MDM initiatives begin with a close evaluation of business units to discover specific issues around inconsistent data. If MDM is implemented as an enabler of key business activities rather than as an infrastructure upgrade, the clear-cut business value delivered will provide the momentum as well as the impetus for further MDM projects. While data quality is a big problem for many companies, launching a 'big bang' attack on this problem can result in a slippery slope leading to frustration and failure. The main reason why MDM initiative is implemented in an organization is to ensure that master information is identified uniquely – which in turn means quality of data is excellent. Experience shows that poor master data quality leads to very high costs in organizations. MDM should provide for superior data quality processes at a point of capture that requires attention and resources. The implementation architecture should be SOA in nature capturing valid data at source. There should be no excuse for lack of data quality processes at the point of capture. The SOA architecture should provide a series of checks and balances with appropriate allocation of authority and responsibility to create and maintain master data. Basic measurement and metrics program should be put in place to monitor stakeholder performance that is vital to the success of a MDM project. E.g. for a CDI-MDM initiative, metrics include KPIs from marketing, sales and service as well as those related to reduction of costs associated with the previous master customer data maintenance systems.

**Concepts and Hypothesis****Customer Data Model**

Data model is an extensively proven transaction processing schema that has evolved and developed over many years to the point where it is able to master not only the customer profile attributes required in the front office but also those required by all other applications and systems in the enterprise. A few of its key characteristics include:

**Roles and Relationships**

The customer model provides support for managing the roles and hierarchical relationships not only within a master entity but also across master entities.

**Related and Child Data Entities and their Configuration**

The customer model is designed to store all the related and child level customer data entities such as Addresses, Related Organizations, Related Persons, Assets, Financial Accounts, Notes, Campaigns, Partners, Affiliations, Privacy and so on.

**Industry Variants**

The prebuilt customer data model is designed to model and store the customer profile attributes for many major vertical markets and industries, including (but not limited to) Financial Services, Telecommunications, Utilities, Media,

Manufacturing, Retail Consumer Goods, High Tech, Public Sector and Higher Education.

**These are the key processes for any MDM System-**

1. Profile the master data. Understand all possible sources and the current state of data quality in each source.
2. Consolidate the master data into a central repository and link it to all participating applications.
3. Govern the master data. Clean it up, reduplicate it, and enrich it with information from 3rd party systems. Manage it according to business rules.
4. Share it. Synchronize the central master data with enterprise business processes and the connected applications. Insure that data stays in sync across the IT landscape.

Leverage the fact that a single version of the truth exists for all master data objects by supporting business intelligence systems and reporting.

**Research Design**

Consolidation of master data is the key to its managing. Without consolidating all the master data attributes, key management capabilities such as the creation of blended records from multiple trusted sources is not possible.

The problem is one of sheer complexity. Massive amounts of data contained in heterogeneous, geographically disparate systems, flawed business processes and siloed business units cannot be vanquished with a single MDM stroke. The end result of a top-down, big bang approach to MDM include interruption of widespread business processes, infectious lack of support and, ultimately, abandonment of the project. Rather than embark on an unwieldy companywide MDM initiative, it is far better to target specific line-of-business applications where improvement in data quality and visibility will yield immediate and demonstrable ROI. Consultants should work closely with business managers to identify troublesome, data-dependent processes and build out an MDM strategy from these specific targets. Clients should be educated up front that MDM is not a one-shot deal. It's an analysis and remediation process followed by an ongoing commitment to improvement.

**Governance**

Data governance is integral to any MDM initiative. It is vital to identify and address faulty business processes that create data problems. As business processes are systematically fixed, a corporate cultural change on taking responsibility for data is needed to ensure optimum utility from MDM. According to Swanton, "MDM projects that don't budget for improved data governance will fail." Underscoring this critical point, he adds, "that if companies don't address the flawed business processes creating the data problems, implementing MDM software is throwing money away." Organizational Impact People don't like to change, and MDM asks them to change how they do their jobs. That is why the value of MDM is so hard to pin down. The software is less important than the organizational changes companies make in the ways

they do business. If MDM is used to improve the ways employees take orders and manufacture, ship and bill goods, the value will be evident within a very short spell of time. If the software is simply installed without any attempt to improve the ways in which employees do their jobs, value will be hard to identify—indeed, the new software could slow processes down by simply replacing old software that employees know with one that they don't understand yet. MDM is necessarily a cross-functional set of tools and processes that by its very nature requires its own dedicated organization. The MDM organization does not need to be large or complicated, but it does need to be disciplined. As the keeper of the MDM processes and standards, the role of the MDM organization is as critical as the software itself in deriving true business-oriented value from a comprehensive MDM implementation.

#### Conclusion

There are various ways or approaches in which MDM project can be planned and implemented. E.g. Big-bang approach is the one where you consider all the masters of the company at the same time. Another approach is to do MDM incrementally e.g. doing MDM location wise or department wise etc. There are various pros and cons of each approach that should be clearly understood prior to embarking on a particular approach. Ensure that there is a strong buy-in on project plan schedule and change management from all stake holders to avoid any road blocks It is good to have a grand and all-embracing vision but it can also be accomplished with small steps. Consider the ultimate goal, but limit the scope of the initial deployment. Once MDM is working in one place, extend it in a stepwise manner. Business processes, rather than technology, are often the key enablers hence it is important to get end-user input early in the process. Every organization is unique and as such selection of the approach would depend on the ground realities of that organization.

The most successful master data management projects begin with easily discernable goals and a relatively quick time for assessment and evaluation. Creating a phased approach that solves early challenges but is easily extendable to other areas of the business can allow your master data management project to show initial value and build momentum throughout your organization.

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