

PERSPECTIVE

Realizing the Business Value of Master Data Management (MDM)



- Shashank Gadgil, Vineet Kulkarni

Abstract

Research shows that 40% of the anticipated value of all business initiatives is never achieved.⁽¹⁾ Poor data quality in both planning and execution phases of these business initiatives is a primary cause. Poor data quality also effects operational efficiency, risk mitigation and agility by compromising the decisions made in each of these areas.

Several enterprises have invested in data management initiatives to ensure a steady supply of good quality and reliable master data to facilitate effective decision making. These organizations are keen to realize measurable value from their Master Data Management (MDM) initiatives. The success of an MDM program is to be viewed from the wider perspective of its impact on organizational processes and customers, in addition to the obvious benefit of reduction in the cost of data operations.

For example, a large global CPG company reduced their NPI (New Product Introduction) timeline from more than 2 weeks to just 5 days, thanks to timely and accurate master data which enabled the launch of new products ahead of the competition.

This paper provides a clear path to maximize business benefits from an MDM program.

Source: ⁽¹⁾ Gartner - Measuring the Business Value of Data Quality, Oct 2011

Introduction

Today's information-driven world is all about leveraging data to power business growth, ensure cost control, launch products/services, penetrate new markets, and exploit opportunities. The increasing adoption of big data, social data, and unstructured data through several channels have made it imperative for enterprises to maximize business value from their investment in data management.

Business value from Master Data Management (MDM) programs can be articulated in two ways.

Value by avoiding bad data

- Lack of focus on managing the quality of master data can adversely impact the organization. For instance, the cost of data quality rework can cost more than 2 percent of the organization's annual revenue

Value from good data

- Build upon existing data initiatives to assess the connection between high quality data and streamlined data lifecycle processes in terms of the positive impact on business functions
- Explore possibilities to leverage enterprise data as an asset and exploit benefits through efficiencies, analytics, and business transformation

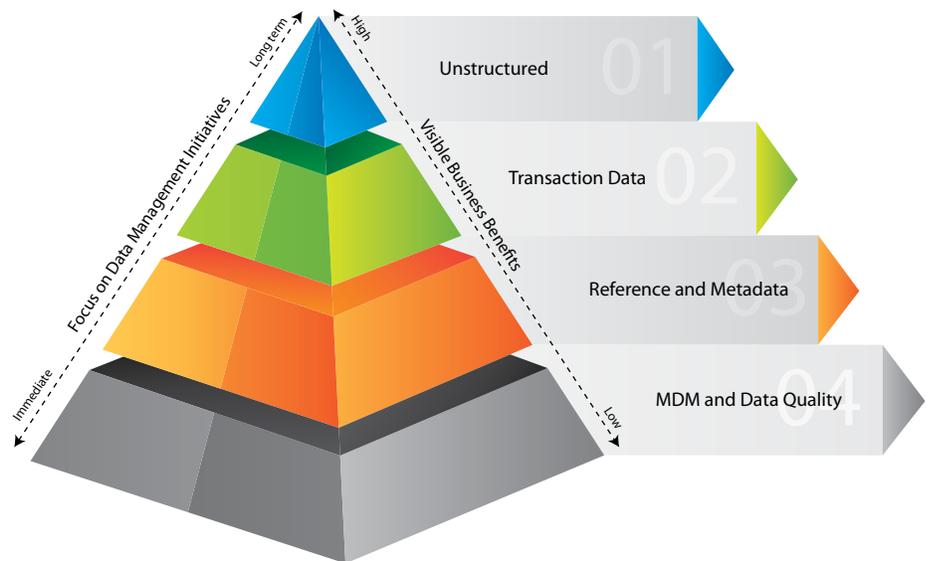
Going Beyond the Usual – A Holistic View of MDM

Viewed in a wider context, MDM has the potential to generate business insights, enable effective decisions, and provide strategic direction for the organization.

Acknowledged and endorsed by several researchers including Gartner, MDM continues to be the foundation for realizing high growth through Advanced Analytics, Big Data, Cloud, and Mobility. For instance, if Big Data outcome is the end, then MDM and data quality are the means to achieve that end. In fact, this year's Gartner MDM summit includes a variety of topics ranging from Big Data to MDM and Data Quality.

In the value pyramid illustration, the first pyramid depicts the bottom-up focus on the fundamentals of master data and data quality. The focus then shifts towards reference and organizational master data, and the journey continues towards various aspects of data from transaction to unstructured data.

The second pyramid depicts business value realization potential from top to bottom. In addition to saving up to a million dollars by eliminating costs towards data rework and fixes, adopting MDM can enable mid to large organizations in the manufacturing sector set the foundation for high-end analytics that can enhance revenue growth.



Success story 1 :

A large manufacturer of compressors and industrial tools in Europe leveraged partner technology and expertise to transform sales and supply chain through master data management.

20% savings in operational costs because of automation and productivity.

Improved customer satisfaction on account of accurate data quality and timely availability of data.

Improvement in data quality from 70% to more than 96% for business critical fields resulted in faster response to customer queries.

Increase in sales productivity by 30% ensured that the sales field force now gets 2 hours/1 day to spend time with prospects and engage in core selling activities.

01	Business derives maximum value Leveraging data points across structured and unstructured to develop insights
02	Operations excellence and cost control
03	Data driven decisions
04	Key contributor to bring efficiencies in downstream eg. Sales, Supply Chain, Finance, Reporting. It is a necessary step to build the data foundation

Some problem statements where MDM can make a difference

1. There are several duplicates in our item and customer master, and it is difficult to track inventory, customer invoice reconciliation. A lot of effort is wasted in setting things right at the front office.
2. Master Data volumes have increased due to business activity including M&A. We lack a full view of our partners across parents and subsidiaries.
3. With a lot of firefighting on data issues, things fall in between the cracks. This creates a dilemma between the Business and IT teams regarding accountability for the quality of Master Data.
4. We are expanding our services to new markets and believe our work processes/technology investments need to be assessed to effectively manage Master Data.
5. There is an in-principle business buy-in to initiate MDM. However, in order to secure investments/funding for our projects, we must have a clearly defined business case with measureable benefits.
6. With a series of data management projects, how do we prioritize them? We need a roadmap.



How MDM Delivers Value

MDM governance, the use of right technology tools/workflows, data standards, data quality, and efficient data operations offer immense benefit potential across the value chain.

Data Domains	Process Benefit Potential	Business Benefit Potential
Customer	<ul style="list-style-type: none"> Rich and accurate data Efficient Customer setup / maintenance Drill down visibility into hierarchy Address and contact follows standards 	<ul style="list-style-type: none"> All required customer information mastered to provide 360 degree view of the customer. Improved customer service and customer satisfaction
Vendor	<ul style="list-style-type: none"> Efficient Vendor setup / maintenance Drill down visibility into hierarchy Up-to date visibility to contracting 	<ul style="list-style-type: none"> Potential for supplier consolidation Spend analysis and optimization Analytics and exploring new contracting/ partnering models with suppliers to save costs
Products	<ul style="list-style-type: none"> Efficient process across multiple handoffs – internal and external departments Product hierarchy maintenance Adoption of standards Standardized descriptions and localization 	<ul style="list-style-type: none"> Improved compliance Faster time to market Optimize cost of operations (eg. logistics and delivery costs)
Equipments	<ul style="list-style-type: none"> Registration of equipment details, serial, function point parameters, and installed location Efficient process to manage changes and flexibility (e.g., in the case of movable equipment) 	<ul style="list-style-type: none"> Proactive customer service Management of warranties, AMC and spares/ replacement support Scheduling for support staff Analyze usage, customer satisfaction
Finance	<ul style="list-style-type: none"> Timely and accurate maintenance of profit centers, cost centers, SCOA , GL, and Finance reporting Compliance with standards (internal and statutory) 	<ul style="list-style-type: none"> Improved compliance Decision making on trusted data
Social, Structured, Semi-Structured, and Unstructured Data	<ul style="list-style-type: none"> Fast and fairly accurate synthesis of data to form insights Improved market reach, brand recall and marketing effectiveness 	<ul style="list-style-type: none"> Improved perception management Customer behavior analysis Proactive prototype ideas/ enhancements Survey/analysis of complaints to make required changes in sales and service processes

Traditionally, organizations have dealt with MDM and data quality initiatives as IT-driven programs, attributing success to cost efficiency.

Evolved organizations have over the last few years realized the benefits of data management beyond cost control through a formal data organization, and processes that can augment BI capabilities to innovate and explore new opportunities. The scope of data management already includes data mining regardless of the various forms of data – structured, unstructured, social, mobile, cloud, perceptions, sensor data, and so on.

A meticulously planned and well executed MDM program has the following characteristics:

Define clear scope

Master Data, Unstructured Data, Transaction Data, Reference Data, Metadata - have a confined scope, but leave the back door open. With the emergence of new data types, e.g., machine to machine and social data, the design should accommodate future data requirements.

Due diligence , data profiling (use adequate levels of sophistication), prioritize domains

Prioritize data domains and create a phased approach. Always take into account the relationships between data domains and the impact to business functions. Deploy data profiling techniques (generally assisted by tools) to identify data patterns and cleanse it to begin with before we look at enhancing the quality of data.

Planning and execution is the crux of successful implementation

A well-defined work breakdown structure and execution plan is critical for successful MDM implementation.

Fix the basics first

Focus on the basic building blocks of MDM, to make the MDM process efficient. Cleanse and transform data to provide the best results on process execution and reporting.

If it is not broken, don't mend it

It is important to build on what is working well. For instance, if there is no scope for additional cost benefit or efficiency in data management by introducing a technology module, put it low on priority. Design to-be processes and operating models that suit your business.

Define your own MDM way – you could be a trendsetter

It may be worthwhile to learn from peers, but the context should be similar. Several organizations try to replicate best practices and technology choices that have worked for other organizations, only to find that they have more challenges to deal with.

Set the right expectations

Although the business case may promise an earlier payback, business leaders get caught in the scramble to demonstrate instant value. MDM is a journey and not an event.

Communicate, Communicate, Communicate

MDM projects generally have an enterprise-wide impact. Identify key stakeholders and set up a communication plan. Carry stakeholders along.

Measure Business Value

Measure business value at each stage of the MDM journey through a 'Value Register'. This helps determine the 'true' success of the MDM program through measurable metrics.





Conclusion:

Business value from MDM projects is not arbitrary. MDM is a means to drive business strategies, provide compelling insights, and serve as competitive advantage.

Successful organizations measure data as an asset. Success of MDM is linked to business outcomes. Value must be measured at each stage of the program to help oversight and timely course correction.

In the next series, we will present some case studies from the retail and manufacturing verticals where MDM has helped reduce complexity, optimize operations cost, and renew focus on revenue growth.



About the Authors



Shashank Gadgil PMP

Principal Consultant – with Business Transformation Services, Infosys BPO.

Shashank has actively involved with information management projects for global clients in Retail/CPG, Telecom, and Manufacturing industries. He has more than 12 years of experience working with clients in Europe and the Americas. Shashank is passionate about MDM platforms, SaaS, emerging technologies, and business value articulation. He has an Executive Management Certification from IIM Ahmedabad, a master's degree in Finance Management and a bachelor's degree in Engineering (Electronics & Telecommunications) from Mumbai University.



Vineet Kulkarni

Practice Lead – Sourcing and Procurement Practice, Infosys BPO

Vineet has more than 25 years of industry experience, with over 8 years of project management experience in Master Data Cleansing, Spend Analysis, and software products and services. For Infosys BPO, Vineet provides thought leadership on Spend Analysis, Master Data Cleansing, and maintenance projects and processes. He Graduate Mechanical Engineer from Sardar Patel College of Engineering, Mumbai.

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