10 Things You Need to Know about Master Data Management

This year, organizations will spend more than $7 billion on master data management (MDM). Is yours one of the organizations thinking of driving greater business impact with MDM? This whitepaper synthesizes the 10 things you need to know as you start your MDM journey.

1. What is master data management?

Most organizations run many systems that all contain important customer, product, employee, facility, and other data assets. These data silos often include inconsistent, duplicate, and incomplete data that results in a disjointed view of the business. Since seemingly similar data is in many different places, answering simple business questions, such as "What products did our customers use the most last quarter?" or "Who is our most profitable customer?" become difficult to answer.

MDM is a business-led program that spans people, processes, and MDM platform technology that you can use to ensure your organization's most important shared data assets—your master data—is consistent, accurate, and accessible.

2. Why use master data management?

These days, you compete with data, especially when engaging with your customers. Data helps you understand what they bought, what the sales process was, what marketing was aimed at them, and so much more. With this 360-degree view of your data, you can engage, delight, and upsell—and thus grow revenues while reducing sales and marketing costs.

You can achieve similar top- and bottom-line value with your product data, for instance, when bringing new products to market and/or optimizing your supply chain. And successfully tapping other key master data domains, such as employees, facilities, and vendors, can yield huge business value as well.

3. What are the benefits of master data management?

MDM lets you:

- **Increase revenue.** To provide personalized cross-sell and up-sell offers, you need complete and reliable data for all customer touchpoints. MDM can provide a consolidated source of master data across your customer data entities. This accurate data source helps you better understand your customers so you can ensure that the right cross-sell and up-sell offers are sent to the right customers at the right time.
- **Improve customer satisfaction.** With MDM, you can also strengthen loyalty and increase sales by personalizing interactions, delivering a consistent experience across channels, and tailoring products and services to your customers' specific wants and needs.
- **Accelerate innovation.** Your R&D teams can introduce new products and services faster using MDM to provide the foundation of project, product, vendor, and employee information for every stage of the new product development lifecycle.
- **Optimize your supply chain.** MDM's centralized product perspective is the key to accessing timely, accurate information on inventory, product returns, and out-of-stock items. With this data, you can improve inventory turns, forecasting, and customer service.
- **Identify and act on insights faster.** MDM provides a complete, consistent, and reliable source of master data across your organization. You can speed up time-to-insight and action by allowing business users to directly access, manage, and visually interact with your master data. Furthermore, MDM simplifies and accelerates data integration, so you can gain insights faster.
- **Improve compliance.** Centralized and complete master data simplifies compliance reporting and reduces associated costs and penalties.

4. Who uses master data management?

MDM is used by business and IT staff across your organization. People are key because MDM success requires a team effort that spans initial implementation through ongoing use. To ensure appropriate resources, buy-in and support from upper management is crucial to MDM program success.

Key MDM participants include:

- **Chief Data Officers** who set the MDM vision and ensure that the appropriate people, processes, and technology investments are in place to realize that vision.
- **CTOs and Data Architects** who integrate MDM into your larger data management strategy and architecture.
- **Data Stewards** who define and implement policies and procedures for MDM operations and administration.
- **Data Engineers** who use your MDM platform to build consistent, accurate, and accessible master data assets.
- **Business Users** who provide business insight into master data relationships that your data stewards and data engineers can use to ensure your master data assets are fit-for-use and accurate.
- **Business Analysts, Data Scientists, and Application Developers** who use master data assets when building your new analytic and operational applications.

5. What are the top use cases for master data management?

Because master data assets are so essential, improving their consistency, accuracy, and accessibility can positively impact a wide range of business activities, including:

- Product innovations and launches
- Customer service
- Marketing personalization
- Customer journey analytics
- Process optimization
- Supply chain efficiency
- Operational consistency and localization
- AI and IoT applications development
- GDPR and CCPA compliance
- Regulatory compliance
- Mergers and acquisition synergies
- Risk management
- Data and reporting quality

6. What are the key capabilities within a master data management platform?

You can use master data management platforms to manage, govern, and consume your key master data assets—including master and reference data, hierarchies, business glossaries, metadata, and more. This management breadth requires a wide range of capabilities:

- **Flexible modeling and repository.** An extensible master data repository with flexible data modeling features provides a centralized view of all relationships between data types. It also clarifies complex cross-domain relationships.
- **Multi-domain MDM.** Multi-domain MDM ensures your master data management platform supports all your diverse master assets, including customers, products, employees, locations, and more, as well as reference data entities such as categories, lists, hierarchies, and more.
- **Multi-style MDM.** MDM platforms should support all four of the main styles of master data management:
    - **Centrally authored.** In this style, data is authored in the MDM, and other systems subscribe to the MDM platform for master data (or the MDM pushes the data into downstream applications).
    - **Consolidation.** Source systems feed data into the MDM platform for consolidation into golden records.
    - **Coexistence.** A mashup of centrally authored and consolidation styles that allows for creation of data in multiple systems (including the MDM platform).
    - **Registry.** Rather than consolidating records, registry-style MDM joins and aligns unique identifiers across all the systems into intersection tables.
- **Real-time, secure data.** Top-tier MDM platforms today allow you to publish and subscribe to data on demand, providing accurate master data when and how you need it without compromising security. With real-time data, you can react better and faster, with decisions based on the insights discovered.
- **Data and workflow visualization.** The best MDM platforms provide a data visualization component that allows you to identify and easily fix quality issues. This capability enables the continuous collaboration required to make improvements, monitor processes, and create dashboards for actionable data analysis.
- **A customizable, business-friendly user interface.** A zero-coding, visual design environment allows you to develop custom user interfaces via simple drag-and-drop actions. Cleaner, simpler, and more flexible, role-based user interfaces accelerate MDM adoption and simplify ease of use.

7. What insights do analyst firms provide about master data management platforms?

Several analyst firms publish reports that you can use to learn about various MDM platforms in the market. Examples include:

- The 2021 Gartner Magic Quadrant for Master Data Management[1] that includes 13 MDM vendors.
- The Forrester Now Tech: Master Data Management, Q4 2020 provides overviews of 20 large, midsize, and small MDM vendors.

8. What is the business case for master data management?

The business case for MDM is quite compelling, with value delivery in seven areas.

- **Revenue.** Improve engagement via better customer insight
- **Reinvention.** Accelerate new product innovation and launch
- **Realization.** Optimize business processes for better and faster execution and higher yield
- **Reconciliation.** Reduce the direct costs of bad data
- **Reporting.** Ensure accurate reports for more effective decision-making
- **Regulatory compliance.** Maintain the organization's good standing with the authorities
- **Risk management.** Avoid business risks

To assist you in building your business case, Gartner provides a seven-step playbook in its April 2020 report 7 Steps to Build a Successful Business Case for MDM.[2] This report also includes best practice instructions and detailed worksheets so you don't have to reinvent the wheel. Request a complimentary copy of the report.

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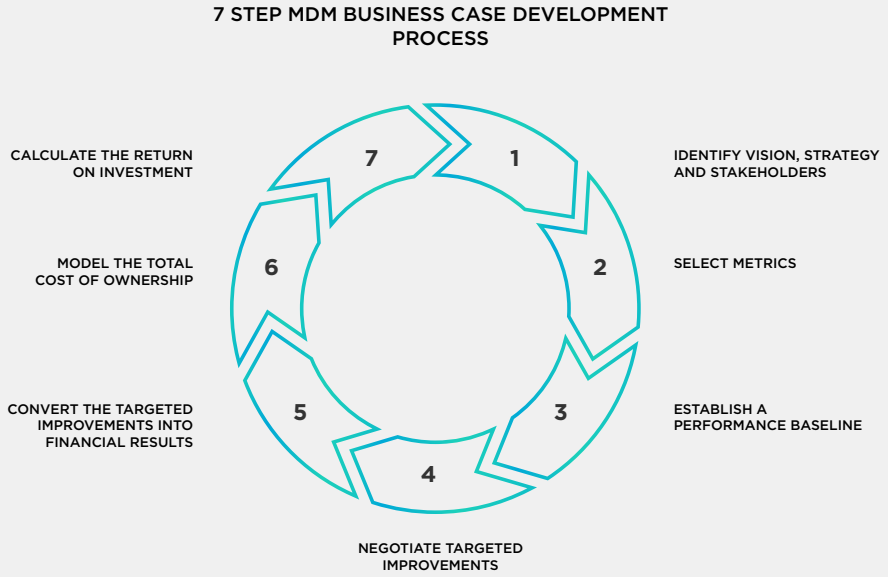
1 Gartner, Magic Quadrant for Master Data Management Solutions, Simon Walker, Alan Dayley, Sally Parker, Malcolm Hawker, 13 January 2020.

2 Gartner, 7 Steps to Build a Successful Business Case for MDM Programs Malcolm Hawker, Simon Walker, Sally Parker, 7 April 2020.



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9. What does it take to successfully implement master data management?

Successful MDM implementations are business-led programs that combine people, processes, and MDM platform technology. This requires a strong foundation that includes these five considerations:

- **Start with your digital transformation strategy.** Because MDM spans myriad data domains and lines of business, it is essential that you implement your MDM platform based on a well-considered digital transformation strategy. Is your success based on customer engagement, innovation, operational excellence, or some combination? The answer to this question should inform your MDM strategy. For example, if your digital transformation strategy is to grow customer cross-sell revenues, then focus your efforts on customer master data that includes customer preferences, prior purchases, current activity, and anything else you need to intelligently offer just the right cross-sell product at just the right time.

- **Build your MDM program on a flexible platform.** Because your MDM strategy will evolve and grow over time, you need to implement an MDM platform that will also evolve and grow as you do. If you select a multi-domain, multi-style platform, you can start anywhere and evolve as you go.
- **Establish proper MDM governance.** Governance is critical. Start by establishing MDM roles and responsibilities. Mandate a master data stewardship process that maintains master and reference data consistency using shared workflows. Implement a common change process across your enterprise and reinforce master data standards throughout your organization.
- **Deliver small wins using focused teams and iterative methods.** Implementing a series of small wins is a proven approach to MDM success. This lets you consistently achieve business benefits, while avoiding the risk inherent in large projects. Key steps in this iterative methodology include: specification, design, development, testing, and deployment. Typically your business teams perform the specification and testing steps, while your technical staff focuses on design, development, and deployment.
- **Leverage third-party expertise and resources.** To supplement your internal team in the early stages of your MDM implementation, take advantage of third-party resources from MDM specialist system integration (SI) firms. Not only does this provide extra resources required for success, it also lets you avoid common pitfalls and the wasted effort of reinventing the wheel.

10. What are the biggest inhibitors to MDM success?

As MDM adoption has grown, so too has knowledge of what can go wrong. Here are five common inhibitors to MDM success:

- **Insufficient business engagement.** If your business users lack understanding of MDM in general, are not involved in your MDM strategy and plans, or are called in too late, you will not get the resources and expertise you need for success. To help get your business users on board, look for MDM platforms that provide business user interfaces and workflows, rather than those that focus only on technical teams.
- **Failure to balance short term with long.** Enterprise-scale MDM adoption is a multi-year journey, not a one time event. For best success, start your MDM program by focusing on immediate needs. This will accelerate payback from your MDM investments. Over time you can expand your MDM platform to more domains. Look for flexible multi-domain, multi-style MDM platforms with proven enterprise-scale references.

- **Underestimating data engineering workloads.** Every MDM project requires that you understand, access, and integrate your source data in some way. This can be especially challenging in today's distributed landscapes where data resides in many repositories, both on-premises and in the cloud. To address this challenge, complement your primary MDM platform with a portfolio of data integration and metadata management tools.
- **Poor data quality.** MDM projects force you to drill down into your data, and as a result, will uncover many data quality challenges. Keep in mind that the only data quality that matters is that which impacts your business. Rather than striving for perfection, carefully aim for data efficacy that helps your business succeed.
- **Misfiring on compliance.** Master data on your customers, employees, products, and more is a vital compliance-auditing and reporting enabler. Keep these requirements in mind as you prioritize, specify, design, develop, test, and deploy your MDM projects.

Conclusion

In this paper, we presented the answers to 10 key questions about master data management and provided the essential knowledge you need to drive significant business value from your master data management initiatives.

Learn more about TIBCO's master and reference data management platform, TIBCO EBX software, and see how others like you have benefited.

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