

Recipe for C-Level Buy-In to MDM

Three actions expose hidden costs of bad data, quantify revenue gains from a data governance investment, and sell MDM to the business

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Executive Summary

In The Conference Board *CEO Challenge 2014*¹ survey, executives were asked to identify and rank the most pressing challenges they face and their strategies for addressing each. Leading challenges included human capital, customer relationships, innovation, operational excellence, and corporate brand and reputation. Curiously, “master data” was not listed.

Few business executives may be aware of master data management (MDM) technology per se², but IT professionals tasked with developing and implementing enterprise information management strategies clearly recognize that the referential integrity of master data is a critical underpinning of nearly any initiative focused on employees, customers, products, suppliers, and other CEO priorities. A common challenge for IT professionals is measuring and communicating the economic value of MDM and related data governance investments in a way that will trigger funding and sponsorship from the executive suite. “There are far too many efforts where the IT team is pushing the MDM idea, and there isn’t enough pull from the business side because there isn’t a clear articulation of what the business outcome will be,” says Gartner analyst Ted Friedman.³

Many executives know they have “a data problem.” Unfortunately, they rarely recognize it as such or understand the magnitude of the issue and its adverse finance impact. IT professionals have a much deeper understanding of the nature and extent of problems associated with inconsistent master data, but they, too, are often unable to quantify the problem in financial terms. Which makes it very difficult to present an investment proposal.

In this white paper, we’ll examine the challenge of quantifying the cost of managing master data and prescribe three concrete actions you as an IT professional can take to build the business case.

The Hidden Costs of Bad Data

Every seasoned manager has experienced master data management problems in one form or another. Sales managers are commonly confronted with regional forecasts that don’t add up to the consolidated figure used by corporate finance. HR executives in global organizations that operate in multiple countries and employ a diverse mix of contractors, part-time and full time workers often struggle with the most basic issue of having an accurate and consistent view of headcount.

Although it’s easy to gain executive agreement on the need to improve data quality, it is more difficult to secure approval for significant MDM investments required to solve the problem. There are two fundamental reasons for this.

¹ The Conference Board CEO Challenge 2014

² Are LOB Executives Involved in MDM or is it Mostly an IT Initiative? 2011 Informatica blog post

³ “Master Plan: Getting Your Money’s Worth from MDM” TechTarget 2013

First, many of the costs associated with fragmented data are not obvious. These hidden costs can come in many forms. For example, choosing a supplier based exclusively on the lowest price can be more expensive than choosing a supplier that delivers cost savings through faster delivery times, better trade discounts, lower rejection rates, and lower shipping expenses. Billing errors due to bad data are manifested in uncollectable debt write offs, diminished cash flow from delayed payments, and customer abandonment. Data quality assessments that include interviews with individuals engaged in business processes where master data is generated and consumed frequently uncover comments like these:

“A \$50 part can cost us \$100,000 in chargebacks”

“I wish I would be able to ensure we don’t over-survey the same customer, especially if they just had a negative experience”

“We have a hard time marrying design with build cost with sub-parts maintenance cost”

A second obstacle to gaining approval for an MDM investment is that executives rarely understand the complexities of the underlying IT infrastructure. It’s tempting for many to believe that the problem can easily and inexpensively be “fixed” in a single system. For example, executives may perceive that all relevant customer data resides in the CRM system, while in fact, customer data may also reside in marketing automation systems, billing systems, financial planning systems, data warehouses, and business intelligence systems. In each system, customers are likely defined and structured differently, and multiple records commonly exist for the same customer across the various systems.

Building the Business Case

The process of quantifying the costs of inconsistent and/or duplicitous master data and developing a business case for MDM is as important as the business case itself. It is essential to focus the effort on key challenges of high importance to both IT and business and to take a collaborative approach that includes all stakeholders and follows an objective methodology.

How to quantify costs and make the case? Start with a hypothesis derived from preliminary investigation, followed by structured research and analysis. The research and analysis should include an examination of the current state of your business processes and IT infrastructure, an assessment of the desired state, and a definition of metrics that define success.

MAKING THE CASE FOR MASTER DATA AUTHORITY

Focus on three steps to gain approval for an MDM investment:

1. **Explore processes and people.** Identify key business and IT stakeholders
2. **Get curious.** Conduct discovery on their business processes, data drags, and ideal scenarios—and how they measure success
3. **Analyze and quantify benefits.** Analyze your findings and build your case

ACTION ITEM

Explore processes and people.

An effective way to identify key stakeholders is to start with an examination of your current business processes and IT infrastructure. Explore how the current state evolved, what the desired state might look like, what changes to the organizational structure might be needed, and who will be affected.

Identify and Organize the Stakeholders

Ensuring alignment between IT and business is crucial. Both groups have vital contributions to make, and both hold stakes in the success of the project. IT has a technological understanding of how to improve the accuracy and relevance of master data. Business owners understand the business processes and how they influence performance metrics. To bridge the gap, IT leaders must demonstrate how improving master data solves business process problems.

For example, a major US energy company embarked on an MDM program to address challenges associated with the configuration and location of hundreds of thousands of assets it designs, builds, and maintains. The IT organization had a major stake in addressing the issue, in part because significant efforts to create analytical deliverables were being wasted due to poor data quality across silos. Reports and dashboards they produced were frequently rejected or questioned by the business.

On the business side, a lack of reliable data, terminology, and location information related to substations, breakers, and meters was creating a distorted picture of maintenance and operational expenses. Equipment failures, unnecessary repairs, fines, and tax liabilities were impacting the field operations and finance organizations. Duplicate and inconsistent vendor and material data was exposing the entire supply chain to excess inventory, non-optimized discounting, and supply risk.

By engaging stakeholders from both IT and business, the MDM project team was able to surface specific problems related to data quality that each organization was experiencing. Both groups shared a common interest and motivation to resolve those problems. As a result, the teams worked closely together to ensure the MDM technology strategy aligned with the needs of the business.

Prepare for and Conduct Interviews

Conducting extensive interviews with a sampling of individuals involved in each step of a business process is one of the best ways to uncover hidden problems and opportunities. Ensure that your list of interviewees is comprehensive. Every cross-organizational job function must be represented, regardless of an individual's seniority or role.

Prepare for the interviews by entering your questions in a spreadsheet that can be used later to analyze and quantify the results. Use separate tabs with a questionnaire for each individual role. For example, you may have tabs for IT manager, a data administrator, a customer service representative, a risk and compliance officer, a marketing manager, a financial analyst, a sales representative, and any number of other relevant roles for your initiative. Each questionnaire will contain quantitative and qualitative questions. Figure 1 lists several examples.

Figure 1. Organizing Your Interviews

Using a spreadsheet and organizing questions with tabs for different roles allows you to combine in the same file interview answers with analysis and quantification of results. Our sample questions below address the IT manager, data administrator, and customer service roles but also include questions for trade executors, risk management, marketing, finance, and sales roles.

IT Manager Sample Questions

Software Licenses: Which of the following software do you currently have installed?						
1	Data Cleansing					
	Software	Number of licenses	Applications that leverage software	Annual maintenance cost	Number of systems with real-time connectors	Annual postal directory cost
	First Logic					
	Group 1					
	Platon					
	Trillium					
	Other 1 _____					
	Other 2 _____					
	What package do you project using for your final solution?					
2	Customer Hub					
	Software	Number of licenses	Applications that leverage software	Annual maintenance cost	Live?	
	IBM					
	Initiate					
	Siebel					
	SAP MDM					
	Other 1 _____					
	Other 2 _____					
3	Hierarchy Management Software					
	Do you have software in place to manage hierarchies? If so, what are they and which systems serve as the source?					
Infrastructure and Development						
4	Disk Consolidation					
	As part of the scope of the project, would it be possible for you to replace the customer database in your applications with the common hub? If so, which systems and what is the size of the customer database in each?					
	Do your systems support merging of customer records? If so, which systems and what is the size of your customer database in these systems?					

5	Development effort
	... Ask questions around interfaces in place to support account and individual data across systems, interfaces planned for development, customizations to standard applications for data quality, etc.
6	Your Staff
	... Ask questions about number of full-time analysts, cost/analyst/year, full-time developers, time spent training new developers, etc.
7	Integration Projects (number of integrations performed per year? Workdays in typical integration project? Typical cost of data conversion? Etc.)
8	Improving Performance of Prior Projects (failed projects that didn't achieve ROI? SWAT team initiatives in place to improve CRM adoption? Etc.)

Data Administrator Sample Questions

Current Effort				
1	What efforts are currently in place to cleanse data across systems?			
	Activity	Resources employed	Annual cost	
	Manual cleansing			
	Record merging			
	3rd party services			
	Dun and Bradstreet			
	Other _____			
2	What efforts are in place to keep data up to date?			
	Which of the following are current sources of leads and which are sources that could be used if data could be reconciled with current files?			
	Campaign type	Annual number of records purchased	Price per record	Potential source
	Dun and Bradstreet			
	Cold Calling			
	AVOX			
	Axiom			
	3rd Party Service			
	Other _____			
Current Process Overview				
3	Describe the process by which master data records are created, updated, and managed. Include counter-party and individual data.			
4	Describe the organizational responsibilities for data management and the personnel assigned to the task.			
Controls (e.g., how is Sarbanes-Oxley compliance met through controls of data? How are you addressing other requirements?)				

Customer Support Sample Questions

1	Call handling: How does your company provide support?				
	Order entry method	Resources employed	Time to handle	Time to create customer	Cost per case
	Telephone				
	Web Self-Service				
	Other 1 _____				
	Other 2 _____				
	Total number of accounts in the Customer Service DB _____				
	Total number of contacts in the Customer Service DB _____				
	How would you describe the impact of incomplete or inaccurate data on the customer service experience (incorrect mailings, failure to upsell, bad service, long calls, etc.)				
2	Mailing Charges (What items are mailed to customers from customer service? At what rate are these returned undelivered? Is your mailing CASS certified? If so, at what cost? Etc.)				

ACTION ITEM

Get curious. Interview both business and IT stakeholders about what they do, how they do it, and where they waste time or encounter problems because of inconsistent, disparate data, and how they'd change the process if they could. Organize your spreadsheet of questions by role, prepare your interviewees, and conduct recorded discussions in an area free from distraction.

In addition to interviewing different roles, you should also include a tab in your spreadsheet for questions about the organization as a whole. These can range from broad issues like your company's industry, annual revenues, current data assessment and IT topology to more specific details about key functional areas like sales, marketing, support, and finance. Other tabs to insert can contain additional input field and calculation formulas that will streamline your analysis and business case quantification.

To ensure objectivity, candid responses and credibility, it is best to use independent professionals from outside the organization to conduct the interviews. Internally-driven interviews can result in hesitancy by interviewees to reveal all information and can also be colored by internal politics and biases. Regardless of whether you conduct the discovery yourself or use an independent resource, advise interviewees in advance on the topics to be discussed so they have an opportunity to think about their responses. The best way to capture and communicate findings is to record transcripts and select direct quotes that effectively convey key points. Unfiltered voices of those "on the ground" enhance the veracity and credibility of a business case.

"We would save so much time and client frustration if our telephony system could identify a customer and pre-populate our call center screen with all core account and policy data for this client"

"The synch between our service management system and our ERP system is automatic, and the parts that are in our ERP system can be overwritten automatically. As such, we end up with four different part numbers for the same part. Duplicate part numbers are a huge opportunity"

"I buy one fitting...it is listed as 30 different part numbers in 30 different warehouses"

Analyze Your Findings and Build the Case

The interviews and research serve as inputs to quantitative analysis. You'll want to quantify costs and benefits, test and measure the sensitivity of underlying assumptions, and evaluate alternative scenarios to build an effective business case. Also, make sure you quantify the costs of not taking action—what are the consequences of inconsistent master data?

Common elements of a business model include:

- **Potential benefits** – Improving master data associated with any functional area of the business will usually carry multiple benefits. These can be categorized as quantifiable cost savings, or hard benefits, and revenue enhancers or soft benefits that are less tangible and more difficult to objectively quantify. For example, improving product master data may yield a series of hard benefits that collectively result in better supplier discounts. Those benefits could include increased discounting for timely payments, increased agility to negotiate payment terms, elimination of unnecessary systems, improvements to the downstream validation process, and less time searching for information. Soft benefits may include a better customer experience which in turn improves customer loyalty and drives higher revenue.
- **Metrics/KPIs for each benefit** – Your business case must translate quality master data into dollars as well as outline the opportunity costs of bad master data. For instance, what's the value of reduced call center costs as a result of quality data? And how would you quantify lost revenue opportunities from bad master data? Make sure you define units of measure—e.g., cost per support call, average support call resolution time, etc.—associated with each benefit.
- **A range of projected financial values for each benefit.** You'll want to quantify the projected financial benefits using a range rather than a single value. These are commonly represented as conservative, optimistic, and most likely.

The output of your analysis, expressed in financial terms, is ultimately what will be subject to the greatest scrutiny when the business case is presented to senior management. So make sure that all stakeholders agree with the model, set of assumptions, and the inputs used for analysis.

Figure 2. Benefit Summary Example

Your analysis should list benefits of implementing MDM with a range of projected metrics for each. The table below represents a sample of benefits

	Conservative	Likely	Optimistic
Savings in maintenance costs			
Reduced IT staff effort			
Reduced business effort associated with regulatory report generation			
Reduced compliance costs (fines and audits)			
Reduced airfreight expenditures			
Reduction of bill of material component cost as a % of sales			
Reduced factory or production unplanned downtime			
Total annual benefits			

Figure 3. Benefit Detail

In addition to summarizing benefit metrics, your analysis should provide detail on each. For instance, describe the benefit and quantify supporting details, as the example below illustrates. Be transparent with your information sources and analysis logic.

Benefit # 11: Reduced Losses from Revenue Leakage			
Company X reports that significant revenue is lost (leakage) due to data quality issues such as incorrect billing information, costing due to lack of knowledge and linkage with customers, contracts, facility maintenance cost, etc. By correcting even a small portion of the reported 8-9% leakage with more reliable data, a significant financial impact may be realized.			
	Conservative	Likely	Optimistic
Total operating revenue (\$B)	\$10.128	\$10.128	\$10.128
Reported leakage	8%	9%	10%
Lost revenue/year	\$810,240,000	\$911,520,000	\$1,012,800,000
Recovered revenue with MDM	1.0%	1.5%	2.0%
Gross margin	18%	18%	18%
Annual associated value	\$1,457,600	\$2,459,700	\$3,644,000

The ultimate goal of a business case exercise is to create a presentation (often delivered to a senior management finance committee) and supporting financial document that will objectively communicate the return on investment. An effective case must quantify the existing problem as well as the benefits of implementing MDM. Those benefits can usually be grouped into three categories: increased revenue, reduced costs, and improved productivity.

Your business case will also include qualitative benefits that may be intuitive but cannot be objectively quantified. For example, MDM programs inherently reduce an organization’s exposure to compliance risk by providing better audit reporting capabilities, internal controls, and data governance. Data quality improvements increase the accuracy of analytic reporting, which in turn lead to smarter decisions. Intangible benefits of this nature are important to call out but should not take precedence over the more compelling and objective “hard data” that most executives prefer to support investment decisions.

In structuring your presentation, the following components should be included:

- **Executive Summary** – A single slide synopsis of the problem, opportunity, solution, and key success metrics (Return on Investment, Net Present Value, Payback Period, and Annual Financial Benefit)
- **Objectives and Approach** – Key objectives, participants and roles, project scope (business functions and IT architecture domains), and major steps in the business case methodology
- **Business Challenges** – An assessment of current IT and business challenges and associated cost, revenue and risk drivers
- **Observations and Findings** – A summary of key findings supported by and illustrated with direct quotes from interviews
- **Business Value Quantification** – A detailed financial quantification of benefits over a five-year time horizon (expressed as a range of conservative, likely, and optimistic scenarios), and categorized by increased revenue, cost reduction, and productivity improvements; qualitative benefits should be appended here as well
- **Comps** – Benchmark KPIs that compare a selection of relevant metrics for your organization to industry peers

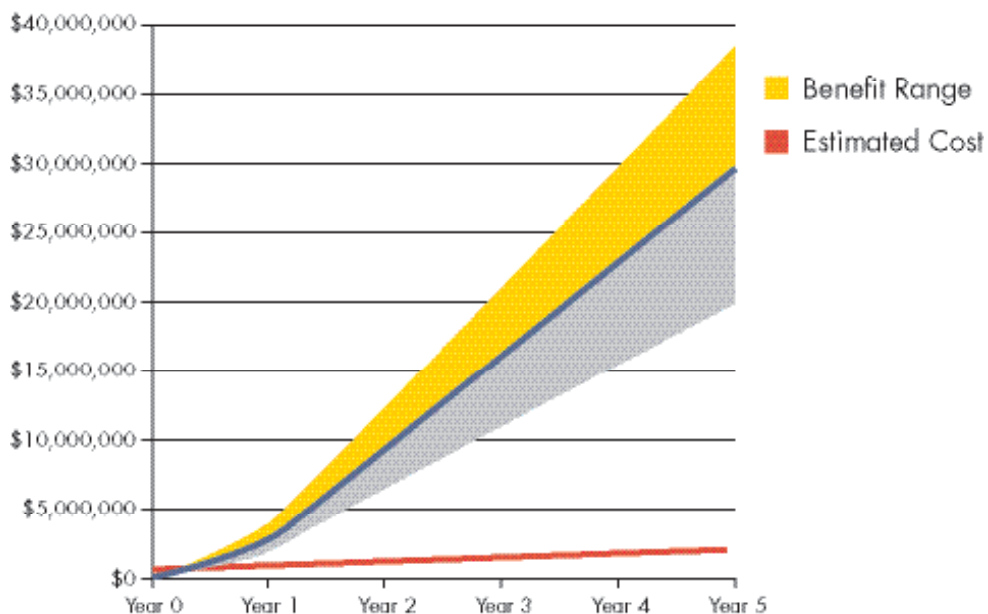
- **Proposed Solution** – Summary view that includes a functional description, graphical architectural representation, key project assumptions, project milestones and timeline, project phases, and other relevant information
- **Analyst Research** – Any relevant third-party research that supports the business case

Show, Don't Tell

Make your point using the three or four key numbers that quantify the value. Typically these include Return on Investment, Net Present Value, Payback Period, and Annual Benefit (expressed as cost savings or revenue increases). Simple charts or graphs like those below add further clarity.

Financial Metrics	
Net Present Value (NPV) at 14%	\$188,689,911
Return on Investment	3026.29%
Approximate Payback	6 Months

Benefits vs. Estimated Costs Over 5-Year Horizon



Case Study: Driving MDM Value at AutoTrader.com

Atlanta-based AutoTrader.com had a problem. As an online platform used by auto dealers, consumers, and manufacturers to advertise vehicles, its homegrown, outmoded MDM system lacked any form of data governance, resulting in multiple identities for a single customer. One individual dealer, for instance, had 27 different identities associated with it.

The company’s business goal was to target a universe of some 50,000 automotive dealers, manufacturers, and their associated marketing companies—which it refers to as “customers”—to advertise on its Web site. A team comprising representatives from IT and the business collaborated in analyzing the situation and developing a business case for an MDM initiative.

The team noted a discrepancy between its 50,000 targeted customers and the 275,000 customers represented in its in-house developed MDM system. Not only were there multiple identities for a single customer, but relationships between customers were a tangled knot that no one could understand.

As Scott Salter, senior director of enterprise data and shared services of AutoTrader.com noted, “The relationship between our customers—dealers, manufacturers, and their advertising agencies—is tightly interwoven. However, we didn’t understand those connection points. We couldn’t tell how many Ford or Nissan dealers there were out there, the interrelationship between each dealer, or sometimes which marketing agency represented which dealer. In customer sales presentations, too much precious sales time was wasted simply trying to understand how broad the dealer’s network was.”

In building the business case, AutoTrader focused on quantifying anticipated increases in revenue as well as cost reductions. According to Salter, “the business case for Informatica MDM was based on two key criteria: driving increased advertising revenue and cost avoidance. We measure the impact of Informatica MDM on both of these in multiple millions of dollars.”

The multi-domain solution AutoTrader implemented is specifically tailored to the unique needs of the automotive dot-com giant and will facilitate the adoption of other domains beyond the customer master, such as vehicle inventory and the end-user buyers of the vehicles. The system has allowed AutoTrader to introduce proactive master data governance throughout the organization. Business users, data stewards, and IT managers can now create and monitor master data quickly and easily.

Shortly after going live with the first phase of its MDM project, AutoTrader has already realized many of the benefits projected in its business case. According to the team at AutoTrader, the implementation of MDM has:

- Led to an anticipated multimillion-dollar increase in on-line advertising revenues
- Created a reliable, single version of dealers and vehicle manufacturers
- Increased value of data by making it relevant, holistic, and trustworthy
- Reduced cost of data by increasing advertising sales effectiveness
- Lowered time and resources involved in navigating overlapping customer records
- Introduced enterprise-wide, proactive master data governance
- Gained future extensibility through adoption of other relevant MDM domains

MDM best practices: value derived from successful customers

While the basic steps for building a business case for MDM can apply to any organization in any industry, the implementation of MDM varies widely. Every organization has its unique data challenges, IT topology, business processes, and master data requirements.

When deploying MDM, it’s important to employ a flexible, multi-functional business model that can adapt to your organization’s people, processes, data, and technology infrastructure. It is equally important to recognize that the need for accurate and consistent master data is rarely confined to a single business function. For example, in most extended enterprises, customer master data is routinely shared across sales, marketing, finance, manufacturing, and even suppliers and other business partners. Although many MDM projects start by addressing the needs of a specific functional area, a multi-domain business model and scalable technology platform can allow your initial investment to be cost-effectively applied in other parts of the organization as needs expand.

ACTION ITEM

Quantify the benefit. Your analysis and interviews should result in lists of specific hard and soft business benefits you’ll realize from investing in MDM, with conservative, likely, and optimistic figures for cost savings or revenue gains. Include qualitative findings to support the hard numbers.

Get Started Now

An easy and effective way for you to get started on building your business case is to leverage the experience and skills of experts who have helped thousands of IT professionals like you across a broad range of industries. Informatica offers a Business Value Assessment (BVA) service that is selectively offered to qualified clients. The service is designed to help IT organizations build a financial justification for driving initiatives around trusted and timely data in support of key business priorities and processes such as customer loyalty, order management, risk and compliance, and more. Working closely with clients and often system integrators, the BVA program comprises four phases: planning, data profile (optional), workshop (interviews), and outcome presentation. Interested in finding out more? Let's talk.

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