

MDM WITHOUT LIMITS: CONNECTING DATA, CRAFTING INSIGHT, MASTERING RESULTS

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Report Highlights

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Fifty-nine percent of business users are dissatisfied with the accessibility of data within their organization.

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Those combining MDM with BI are fifty-four percent more likely to see an improvement in data visibility.

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Sixty-nine percent of companies with a multidomain approach to MDM saw an improvement in decision accuracy.

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Multidomain MDM users saw twice the reduction in operating cost, compared to All Others.

This report explores the impact of extending and expanding an approach to master data management (MDM) into multiple areas of an organization.

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As the typical line-of-business user becomes more data-driven and analytically inclined, they look to incorporate more distinctive types of data in their analyses.

Fast Facts:

Early findings from Aberdeen's survey, *Analytics in 2017: Activating Intelligence across the Organization*, reveals the top pressures driving data initiatives (% of Respondents):

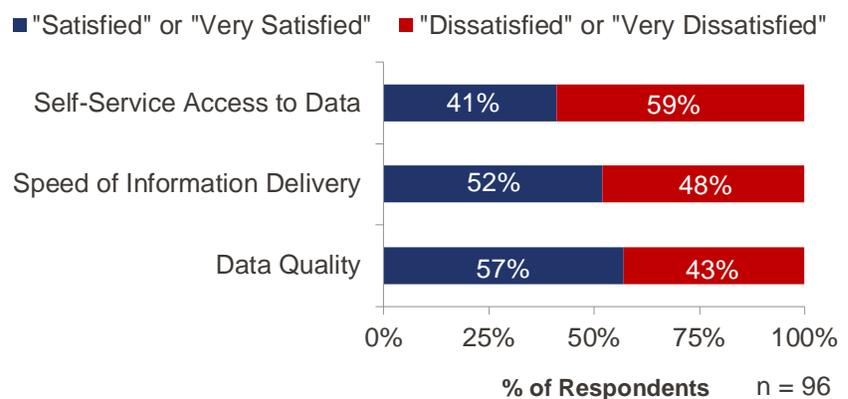
- Competitive pressures require us to become a more data-driven organization – **51%**
- Difficulty accessing data from across the organization (e.g. "data silos") – **41%**
- Workforce demands better data access and analytical capabilities – **34%**

A World of Data Complexity and Disparity

From the marketing manager to the database administrator, users from all walks of business life are challenged by a significant amount of complexity in their data environments. As the typical line-of-business user becomes more data-driven and analytically inclined, they look to incorporate more distinctive types of data into their analyses. The IT administrators, and those charged with supporting the data environment, struggle to connect, normalize, and manage a multitude of disparate data.

Between everyday applications, data warehouses and data stores, to the ubiquitous spreadsheet, users are pulling information from a variety of different places. Aberdeen's research demonstrates that large enterprises are managing an average of 37 active and unique data sources, just for analysis. Moreover, one of the top-rated challenges in dealing with data is this widespread distribution of inaccessible data sources (see sidebar). These challenges lead to a palpable sense of dissatisfaction on the part of many of these users (Figure 1).

Figure 1: User Satisfaction Remains Elusive



Source: Aberdeen Group, December 2016

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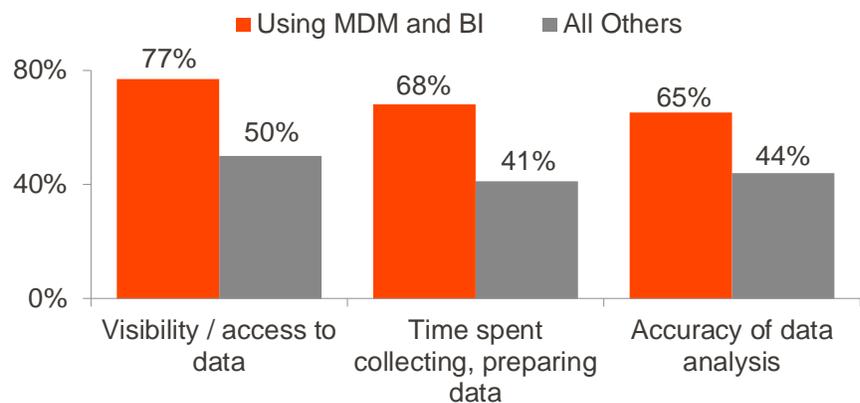
Data Diversity and Cutting-Edge Insight for Sales and Marketing

Regardless of the job function, or title, users struggle to get the data they need, within the time frame they need it – all at a satisfactory degree of quality and trustworthiness, resulting in a lack of data analytics accuracy and integrity. Beyond wasting time, effort, and money in the data environment, this lack of integrity in the analytical process can lead to underinformed or misinformed decisions, thus wreaking havoc on the operations of a company.

The Union of MDM and Business Intelligence(BI)

As companies consider their approach to analytics and supporting a more data-driven user environment, most recognize the need for a solid foundation of clean, relevant, and consumable data. However, not all have fully embraced a formal MDM) strategy. Those that have effectively combined MDM, with analytics, are seeing significant efficiencies in their decision process (Figure 2).

Figure 2: An Enhanced Decision Process



% of Respondents that saw improvement n = 177

Source: Aberdeen Group, December 2016

Most organizations that have adopted MDM view it more as a philosophy for data management than they do as just a

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While companies may have started just managing and mastering a single data domain, there has arisen the clear need for the ideals of MDM to be applied broadly across the company.

technology platform or a suite of tools. Combining best practices for data governance, data ingestion and normalization, as well as quality enhancement, MDM has the ability to address the dissatisfaction depicted earlier on Figure 1 (page 2). Those marrying MDM with BI saw substantial improvements in data accessibility, reduced time prepping data, and improved decision accuracy. These improvements help preserve the integrity of a company's most critical decisions.

A Connected World of Data

For the first few generations of MDM solutions, companies had viewed the technology somewhat myopically. Organizations trying to bring order and consistency to their supply chain, for example, might have focused their effort solely on the product data domain. Others in a marketing or customer-facing role might have centered their MDM strategy on the customer data domain.

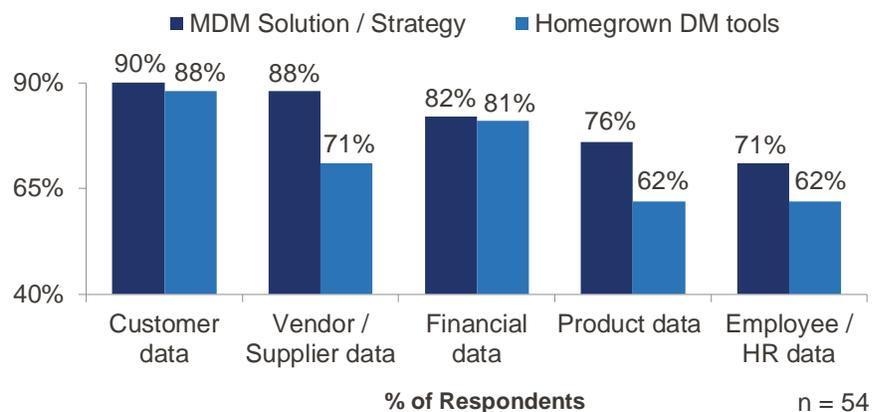
While companies may have just started managing and mastering a single data domain, a clear need for the ideals of MDM's broad application companywide has emerged. Data is now more connected and interdependent than ever before. Where customer data may have once primarily contained simple demographic or transaction history data, other information around customer preferences and buying habits now connects back to product data. This information is valuable in guiding the product development process. This data then, in turn, connects back to supplier data, helping to create better supply chain efficiencies in the development process. Moreover, when you take the traditional set of data sources – such as applications and formal data warehouses –, and then layer some of the new forms of data on top, such as unstructured social media data, machine-generated IoT data, or location-based geospatial data, there are more connection points and correlations to be made than ever before. Companies, therefore, look for ways to create enriched insight

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Without having to grapple with too much dirty, corrupted, or incomplete data, users can connect to a broader array of data sources and find the critical piece of information they're looking for, within a time frame that allows them to act expediently.

from multiple data domains. Some organizations address this need to gather and incorporate disparate data by deploying a variety of homegrown tools to help manage different domains. However, a formal approach to MDM, without user domain and data limits, helps bring more consistency across multiple domains (Figure 3).

Figure 3: Data Domains Mastered



Having multiple domains under management also supports an elevated level of analytics. However, it's important to remember that providing access to more data for the user base is important, without the layer of governance, consistency, and oversight that MDM provides, companies could be creating more problems than they're solving.

Mastering Data without Limits

Once companies recognize the value of a broader strategy for MDM, the question then becomes, "What is the most efficient way to manage each of these data domains?" From a tactical or operational standpoint, there will always be value in applying

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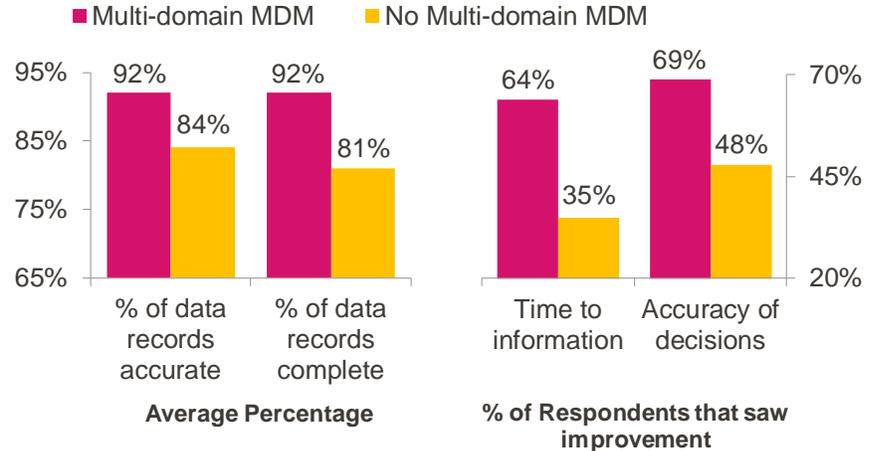
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formal oversight and management to data. However, when companies try to weave together different technologies – either homegrown or commercial off-the-shelf tools – the process can become expensive and time consuming. Companies with particularly complex data environments that are ripe with opportunity for insight, are gravitating toward a multi-domain approach to MDM (see sidebar). Aberdeen’s research demonstrates the value in applying the processes and technologies of MDM across multiple data domains with a cohesive, centralized platform. For starters, these companies were able to drive improved accuracy and completeness in their data (Figure 4).

Figure 4: Data Efficiency with a Multidomain Approach



n = 54, Source: Aberdeen Group, December 2016

Furthermore, a cleaner and more trustworthy foundation of data helps reduce wasted time in the decision process. Without having to grapple with too much dirty, corrupted, or incomplete data, users can connect to a broader array of data sources and find the critical piece of information they’re looking for quickly, resulting in more expedient action. Due to this efficiency in converting data

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into clean and relevant insight, these multi-domain users then enjoy a greater degree of accuracy in their decisions.

Case-in-Point: A Large International Pizza Restaurant Chain

In an effort to better understand the impact of effective MDM, consider the case of a large international pizza restaurant chain. With thousands of chains spread across 70 different countries, this organization deals with a large array of complex data. With a stated goal to optimize sales and profitability, this company set out to create a platform for big data analytics against hundreds of millions of customer records and transactions.

An environment this complex and broadly distributed posed significant challenges to the analytical process. The sheer volume of data (over 350 million individual customers and billions of orders) was a challenge. However, the disconnected or “unmatched” nature of many of these customers was a bigger problem. The company’s mission was to connect customer demographic data to transaction history. This would enable the business to perform “identity stitching,” uncovering much better understanding of customer purchase habits and preferences. More than half of these individual customer identities had been matched to their order history. Unfortunately, there still remained tens of millions of unmatched customers – and tremendous untapped potential for insight. But there was a solution.

By employing a multidomain approach to MDM, as a key element of this platform, this organization was able to gain a much better understanding of their customers by elevating their identity stitching methodology to a new level. The initial proof of concept suggests substantial improvements, including:

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Fast Facts:

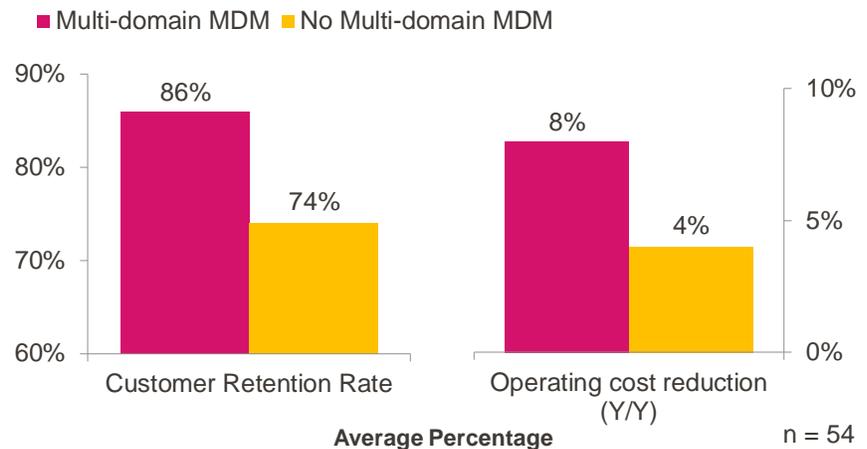
- **73%** of MDM Leaders have multi-domain MDM capability, compared with 39% of Followers
- **69%** of Leaders have consistent policies in place for data classification, compared with 42% of Followers
- **67%** of Leaders have formal in-house development of analytical talent, compared with 45% of Followers.

- ➔ Identification of 43 million new households (87% increase)
- ➔ 81 million fewer unidentified customers (99.8% decrease)

While enticing in their own right, these numbers suggest major tangible business performance improvements on the horizon for this restaurant chain. Mapping and matching individual customers to their order history and household will help create better targeted marketing promotions and improve individual and household spend, delivering top line revenue improvements. Additionally, with a better understanding of customer buying habits and preferences, this initiative will also help guide the product development process and likely generate incremental future revenue streams for this organization.

Driving Tangible Business Outcomes

With technologies like MDM, it's easy to get wrapped up in the immediate impact to the data environment (number of records, completeness of data, etc.). However, companies need a way to tie these efforts back to tangible business performance (Figure 5).

Figure 5: Data → Action → Execution

Source: Aberdeen Group, December 2016

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Greater data clarity and consistency support a better understanding of customers, as well as internal operations. Those with multidomain MDM are more effective at transforming data into insight and acting more quickly.

The general progression of analytics involves transforming raw data into actionable insight and making impactful decisions based on those insights. Data management and maturity play a key role in this process and companies with a multidomain MDM approach are seeing results. Greater data clarity and consistency support a better understanding of customers, as well as internal operations. Those with multidomain MDM are more effective at transforming data into quick action that uncovers opportunities for customer expansion and retention, in addition to operational efficiency.

Key Takeaways

The ability to generate insight and make better data-driven decisions is dependent upon far more than just a simple BI dashboard or prebuilt report. Effective analytical activity – from data exploration, discovery, predictive modeling, visualization, and many others – is predicated on clarity and consistency in the data environment. MDM can be a critical piece of the puzzle for enterprises managing complex and disparate data. Moreover, multi-domain platforms that allow customers to extend their solutions to include additional domains, users, and records allow organizations to expand their multi-domain platform without having to factor in additional technology costs. As a result, these organizations are more agile in expanding their MDM footprint and provide more business value. For those exploring ways to augment their data environment, note the following key takeaways from Aberdeen’s research:

- ➔ **Data complexity and disparity plague organizations.** It’s a challenge for companies to sort through the sheer volume of data these days, and the variety of source systems and data types present even greater obstacles. On the other

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hand, more companies are looking at their data as an opportunity to generate new insight than as just a problem of exploding data volume that needs to be managed. The potential locked away in a variety of applications, data warehouses, spreadsheets, social media outlets, and other connected devices, is increasingly enticing for today's organizations.

- ➔ **MDM paves the way for better decisions.** With a solid foundation of clean, relevant, and well managed data, companies are in a position to transform data into insight more efficiently and equip the line-of-business with the decision support they need. While many aspects of MDM may have traditionally fallen on the shoulders of IT, the pattern is changing. Today's users who are empowered by and are interacting with applications on a regular basis, are increasingly involved in data stewardship and governance. The MDM technologies must be well suited to support this trend of data accessibility.
- ➔ **A multidomain approach connects data to performance.** More than ever, the most business-critical decisions depend on data to augment experience and gut instinct. Today's most impactful data-driven insights come from connecting and correlating information from different data domains across the company. This results in creating improved, tangible business outcomes. Next generation MDM solutions must allow for an unlimited approach to users, records, sources, and domains in order to help support these enriched insights and elevated decisions.

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