



Despite significant investment in core operational systems (Salesforce, MS Dynamics, and SAP) and analytics teams hired to put to work the data that's flowing into the systems, most medical devices manufacturers still struggle to gain a true 360-degree view of their customers. With many in the industry investing in a cloud computing strategy and the need to execute digital customer strategies, the time to tackle messy customer data is now.

In this ebook, we'll discuss how leaders can fix the fragmented customer experience caused by bad data. We'll show how a machine learning-driven, cloud-native approach to data mastering unlocks complete customer views across sites, corporate hierarchies and indirect sales channels. And, we'll highlight 10 tactics industry leaders have used to master customer data and accelerate their digital transformation.

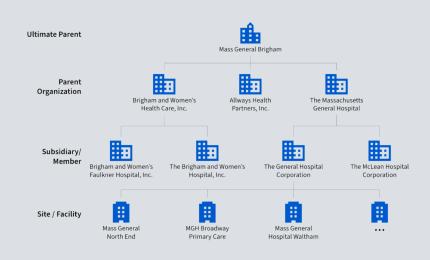
What Customer Mastering Means

Customer mastering achieves true customer 360 - a unified, accurate, enriched view of customer data across distribution channels, systems and sources that can feed both operational and analytical systems, from CRMs, ERPs and marketing automation tools to business intelligence tools and dashboards.

Mass General Brigham vs. Mass General Hospital vs. Brigham and Women's Health Care

One of the most common, and highly visible challenges with customer data is that customer names are often spelled in different ways or exist as subsidiaries. Take this example of one of the largest hospital networks in the country: Mass General Brigham vs. Mass General Hospital vs. Brigham and Women's Health Care. The list can feel endless and accommodating name variations or misspellings via rules (if [nameX] = [nameY] then..) becomes unmanageable.

Mastering customer data requires using often imperfect information and judgment to decide if two customer entities are connected which is why a machine learning approach is vital.





Ten Ways Customer Data Mastering Helps Successful Digital Transformation

1. Master customer data across business units to inform rebate and pricing strategy:

Pricing strategy within the industry is complicated. By unifying and tracking pricing information across corporate accounts, mastering customer data enables a centralized pricing view. Instead of being merely reactive to quote requests, operations can monitor pricing by market segment, business unit and customer segment to proactively engage sales and pricing teams on commercial terms to ensure profitability is prioritized. Without a data-driven pricing strategy, sales reps can go rogue to 'sell at any cost' which may not result in a desirable level of profitability. Marginal improvements in pricing can translate to millions of dollars of revenue growth as the strategy scales across accounts.

2. Enrich your prospect and pipeline data to gain insights on new sales leads:

Enriching new lead information ensures that Sales is armed with the right information to act quickly. It provides 360-visibility on existing business with the organization, and accurate lead contact information for outreach, removing manual effort for the sales team. For one medical devices company, each new lead activated was worth 10s of thousands of dollars. It translated to tens of millions of dollars when data was improved across their sales pipeline.

3. Automate your data pipeline to increase team productivity:

Data preparation, cleaning and categorization are time-consuming processes when tackled with rules-based approaches ("if x=y, then") or sheer manual effort. The work is typically spread across teams - while data scientists and engineers often dedicate the most time to it, data consumers within the business often manually adjust the data given low data quality. This can range from a sales rep wasting precious hours trying to reconcile data in Salesforce to a financial forecasting team manual merging data sets in excel. Through a machine learning approach to mastering customer data, manual effort can be reduced by up to 90% - the research consulting firm Forrester estimated that the average company saves \$4.9M over 3-years.



Monitor distributors across channels with a complete view of customers:

Data from distributors can often be the most difficult to govern. By creating a unified view of customers across distributors and sales channels, partner teams can enhance distributor operations by monitoring performance, informing distributor price authorizations, and ensuring distributor margin plans align with internal audit and the distributor's expected ordering profile. At a strategic level, a 360-degree customer view across channels helps to inform distributor selection to assist channel strategy.

Focus on customers' digital experience to achieve better services and retention:

With the progress of cloud adoption and the growth of remote work, digital self-service for customers has become increasingly important. By providing a holistic digital view of accounts, companies can guide recommendations, ensure fulfillment and create a path for renewal and expansion, which some industry leaders referred to as "optimizing the digital shelf." As more commerce moves to self-serve/online, having a platform that focuses on the end-to-end customer experience will help you stand out from the noise.

Develop a first-party data strategy for personalized experience across digital channels:

As digital marketing shifts from third-party identifiers toward a privacy-driven approach, marketers must adapt and invest more in first-party data. It's data that you own and collect with direct consent from customers, through interactions on apps and websites, and in response to marketing initiatives, like email and loyalty programs. When used responsibly and efficiently, first-party data can help companies build direct relationships with their customers, create value, and boost their marketing performance.

7. Have a hierarchy view of accounts to improve sales operation efficiency:

Given the complexity of customer relationships across business units, countries and corporate hierarchy, it's critical to focus go-to-market (GTM) budget on outreach strategies that target decision-making business units. Unifying customer data based on location and parent hierarchy gives marketing a richer view of customer relationships so marketing budget isn't wasted on multiple campaigns to the same companies, bounce rates are reduced and promotions target the right business level.





8. Avoid and resolve duplicate records to optimize marketing across key accounts:

By creating a mastered data view of customers, relationship managers and sales reps are armed with accurate account information across CRMs and analytical tools to target customer conversations and avoid duplicate outreach efforts. Sales leaders today are focused on reducing all non-customer engagement activities so that account representatives can focus on what matters - the customers. According to research by McKinsey, only 26% of a salesforce's time is spent on customer-facing tasks such as meetings, calls, and account strategy.

Focus on the quality of data being consumed more than how it's being created:

A modern approach to enterprise data mastering assumes imperfect source data and acts accordingly. This thinking is similar to Google's search indexing infrastructure, which assumes that all data on the web is imperfect. In other words, data consumption is what truly matters, and it sets the proper context for enterprise data mastering. Over time—as data consumers validate the best data as a data organization—you can then go back to remediate the original sources' data. By applying machine learning strategically to enterprise data mastering, you can create trustworthy, automated models for the mastered entities that matter to the business: customers, products, employees, suppliers, and so on.

10. Articulate business value and ROI from improved data infrastructure:

According to Gartner, the number one reason Master Data Management (MDM) projects fail is the lack of a structured framework to qualify and quantify data management value creation. Data leaders need to be able to identify and solve the technical problem and be able to articulate the business problem and link the two. Without a strong business case, potentially high-impact projects can be delayed (or killed) for the lack of support from executives



The Key Challenges Impacting the Quality of Customer Data

Poor integration of data, especially from distributor

The complexity of multi-channel sales within the industry has increased the need for tight data integration across systems. While CRMs (Salesforce, MS Dynamics) and ERPs (SAP, Oracle) continue to form the foundation for customer data, as the proliferation of data across the enterprise continues, the list of data sources is long and growing - from marketing automation software to online portals to adhoc csv files. On top of the internal data challenge, integrating data from indirect sales channels, such as distributors, can be particularly difficult as integrating external sources into data pipelines can be difficult. While legacy systems and data sources can sometimes be a burden, if properly leveraged, they are also an incumbent's greatest asset. Given the expansion of regulation for data sharing, the importance of first-party data comes back into focus. Many of the more established players in the industry have the opportunity to use the wealth of customer data gathered to out-maneuver newer players.

Inaccurate, out-of-date and multilingual customer data

Many medical devices companies continue to struggle with varying degrees of quality and consistency across customer systems. Typical errors include misspelled organization names, wrong contact information, and unintentional duplicate records within databases. In some cases, it can be as extreme as contact names or address information found in fields meant for the organization name. Inconsistent data schema and metadata can fuel misunderstanding of what data was intended to be captured. It can be tough with indirect sales, where governance of distributor input of data can sometimes be non-existent. The global nature of many within the industry also leads to language standardization and translation challenges.





Connecting site-specific sales to the organizational/corporate customer relationship

Customers can be classified by site, country, region, contracted entity, legal entity or parent organization. Often, the most important place to start is site-level customer data to gain a 360-degree view by location. With that insight, customer data can be rolled up into regional and corporate views. Often, there is variation in how customers are classified within and across departments; for instance how Sales classifies customers for team coverage might be different to how they classify customers for contract management or marketing campaigns.

How the customer journey is tracked across systems ultimately needs to facilitate a 360-customer view that can be used by the business to make better decisions.

Why Machine Learning Is Important for Customer Mastering

A machine learning approach is needed to achieve high accuracy and carry out the mastering process efficiently. The backbone of most traditional approaches to master data management are rules (at the most basic level, 'if-then' type statements). Rules do not scale and, in our example, struggle to allow for the nuanced relationship levels of our Mass General example. Rules require consistent high amounts of manual effort from creation to maintenance and become a complicated web to untangle for any data team once scale is reached. By leveraging a machine learning approach, it allows customer data to be mastered with a fraction of the manual effort, while maintaining team input and influence on how the data should look. Poor underlying data quality can mean piecing together partial information like half-completed address fields - a task built for a machine learning approach.



3 Important Technical Features for True Customer Mastering



Reference data management

A unique ID that connects customer records within and across systems and enables a golden record view of customers, grouping the underlying records to ensure accurate, consistent information feeds a holistic customer view.



Consistent data enrichment

Built-in pipeline enrichment capabilities to ensure critical customer information such as address, email and URL are kept up to date. While information validation is now standard practice for many, it's vital to establish a streamlined process and consistently integrate enrichment services as part of the data pipeline.



Hierarchy classification

Flexibility to classify customers based on how you manage customers, from sites and sales regions to corporate hierarchies. It's critical that mastered customer accounts are able to link accounts at an overall hierarchy level.

Case Study

Real-World Impacts of Customer Data Mastering

Johnson & Johnson harmonize performance data across global regions on a daily basis

Johnson & Johnson is a multinational medical devices, pharmaceutical, and consumer packaged goods organization. Their data and analytics team wanted to leverage all of their data, both internally generated through decades of business operations, and externally purchased, to optimize their business operations from sales to marketing to supply chain functions.





Their goal was to answer key business questions like "which product is selling best in which geographic region?" and "what is our best sales channel for a particular sub-brand?" The company had created a best-in-class analytics platform to analyze their existing data, but soon realized that the data feeding these analytic tools varied too much in structure to be easily tied together and analyzed. This is primarily because company sales are driven through various global distribution partners, with each partner sending the organization data in a unique format with regional product naming conventions and other variations.

Moreover, the company acquired enrichment data from third parties with their own unique formats and naming conventions -- creating even more extreme variety and serving to exacerbate data management issues. The internal data team decided to implement a Data Lake strategy that would create a centralized data staging and integration layer for large scale rapid data processing, data mining, and analytics. Tamr was a key component of that Data Lake strategy. Using Tamr's modern data mastering capabilities, Johnson & Johnson was able to achieve:

- **Improved analytics for sales and marketing** to drive growth by applying best practices to pricing and promotions
- Better supply chain visibility and sales & operations planning to reduce supply chain risks (excesses & shortages) through richer insights into what's being sold where, to whom
- Use resources more efficiency through machine learning that automates work which would otherwise be done manually, reducing costs and accelerating time-to-value

With the help of Tamr, Johnson & Johnson was able to boost sales and improve marketing efficiency with a global view of product sales.

Johnson Johnson

"With Tamr we can effectively master data from internal and external sources, including key data about distributors and retailers. This drives new insights about product sales performance and impacts our business."

- Worldwide Head Data & Analytics Product Line - Consumer & CMD



A Successful Customer Mastering Initiative Can Be the Catalyst for a Lift in Sales and Marketing Performance

Many companies know that their customer data has the potential to be an incredible asset and drive business results. But realizing the potential from the data to improve sales and marketing results remains a struggle. Early investments in technical solutions aimed at solving the customer data issue (data lakes, rules-based master data management, and point solutions) have largely failed because they cannot address both the scale and variability of customer data.

Data mastering is a new way to solve the persistent issues of poor customer data. By embracing next-gen technology like machine learning and the cloud and applying a **dataops** approach, clean and up-to-date customer records become the status quo. Mastered customer data can be fed into operational and analytical systems, putting the data to work and creating a flywheel of positive business results.



Next Steps

Are you ready to master your customer data to improve business performance?

Connect with Tamr today to get started.

SCHEDULE A MEETING

