Which Data Is Master Data?

Business needs clear guidance on which of their data is master data. This research provides simple-to-use criteria to correctly classify master data. Data and analytics leaders can use this research to give their peers clear guidelines to make master data identification and classification reliable and useful.

Quick Answer

Which Data Is Master Data?

- Master data has specific classification and usage criteria.
- Using these criteria enables business to identify candidate master data attributes.
- Identified master data attributes and values require focused governance and stewardship.
- Master data attributes can be further evaluated by their value to business.

More Detail

What criteria define an attribute as master data?

Using these criteria enables business to identify candidate master data attributes.

- Does the attribute value need to be consistent and uniform (for example, date of birth is created using a consistent format like DAY/MONTH/YEAR).
- Is the data used as an identifier?

Identifiers include internally generated identifiers like a customer number. Also, they can be externally generated identifiers like a customer’s passport number, or a product’s Global Trade Item Number (GTIN).

- Does it define the unique entity’s characteristic?

Unique characteristics can include color, dimensions, or first and family names.
Master data attribute values rarely, or never change over time. A customer's date of birth would never change if correct. A customer's transactions change frequently.

- Is it used often by multiple operational applications and for analytics?

Master data is the most widely used type of data within an organization by multiple operational and analytical processes and their supporting applications. For example, customer master data will be used by supply chain, marketing and customer services. Master data can also be sourced and shared outside an organization (D&B, for example). Much data will be used less widely and, although it too may describe customers, or products, it is not master data.

**Figure 1: The Master Data Attribute Evaluation Process**

**The Master Data Attribute Evaluation Process**

- **Start**
  - Its use requires the attribute value to be consistent and uniform? (Yes/No)
  - Is it an identifier? (Yes/No)
  - Or, does it define the unique entity's characteristic? (Yes/No)
  - The attribute value should not change frequently? (Yes/No)
  - Does the attribute value need to change frequently? (Yes/No)
  - Is it used in the greatest number of applications? (Yes/No)
  - Master data attribute candidate
  - Business value assessment
  - End
Master Data and Non-master Data Examples

### Master Data Examples

<table>
<thead>
<tr>
<th>Customer (B2C)</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Title</td>
<td>• Identifier(s) (SKU, GTIN, UDI)</td>
</tr>
<tr>
<td>• First Name</td>
<td>• Weight</td>
</tr>
<tr>
<td>• Family Name</td>
<td>• Dimensions</td>
</tr>
<tr>
<td>• Date Of Birth</td>
<td>• Color(s)</td>
</tr>
<tr>
<td>• Residential Address</td>
<td>• Materials/Ingredients</td>
</tr>
<tr>
<td>• Email</td>
<td>• Country of Origin</td>
</tr>
<tr>
<td>• Phone Number(s)</td>
<td></td>
</tr>
<tr>
<td>• Government Assigned Identifiers (Driving License, National Identity, Passport)</td>
<td></td>
</tr>
</tbody>
</table>

### Other Data Examples

<table>
<thead>
<tr>
<th>Customer (B2C)</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Transactions</td>
<td>• Price</td>
</tr>
<tr>
<td>• Social Media (Shares, Likes)</td>
<td>• Inventory</td>
</tr>
<tr>
<td>• Product Reviews</td>
<td>• Lead Time</td>
</tr>
<tr>
<td>• Behavioural</td>
<td>• Orders</td>
</tr>
<tr>
<td>• Interactions</td>
<td>• Sales/Profitability</td>
</tr>
<tr>
<td>• Segmentation</td>
<td>• Returns</td>
</tr>
</tbody>
</table>

Source: Gartner
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Master data defines the core entities of the enterprise, used widely across multiple business processes. In addition to customer B2C and product information, master data can define customer B2B, materials, parts, suppliers/vendors, assets, locations, reference data, employee, patients and citizens. Master data domains will be selected and prioritized based on the type of organization.

**Business Value Assessment**

Finally, a master data attribute can be further evaluated by its value to business. As the governance of master data moves throughout its life cycle, the cost of achieving the highest quality can be expensive when compared to nonmaster data.

Questions to consider include:

- Does it enable process effectiveness and efficiency?
- Can cost reduction be measured?
Can time reduction be measured?

Will it minimize risk, or improve compliance?

**Getting Started**

- Use information classification techniques to determine what master data needs to be governed, and for which core (for example, most at risk, or most valuable) business processes, analytics and applications.

- Starting with smaller projects, use the lessons learned in initial projects for future efforts and use early projects to determine how each new master data effort will proceed.

- Identify and document publishing and subscribing systems for the attributes of master data. This will help you identify the “life cycle” of master data across your organization.

- Avoid scope creep and expand MDM to governing other data types, as this will lead to confusion and could harm the success of MDM.

**Recommended by the Authors**

*Articulating MDM Value to the Business*

*Three Essentials for Starting and Supporting Master Data Management*

*Think Big, Start Small, Be Prepared — Master Data Management*