

# Enterprise Master Data Strategy

## Deprived Master Data & Remedies

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### Abstract

Master data has played a significant role in improving operational efficiencies and has attracted the attention of many large businesses over the decade. Recent academic reviews have also found a significant growth in the practice and research of managing these master data assets.

MDM is a technology-enabled practice through which businesses oversee master data assets and ensure the accuracy and accountability of the enterprise's shared data. Enterprise MDM calls for the use of centralized governance and collaboration, also called the master data HUB system.

Focusing on solutions to conceptual and real-world obstacles and enhancing the management process can contribute to deepening its applications and creating secure and profitable entrepreneurial communities.

### Attention

Thus, the following article will demonstrate examples of good and bad practices of master data management and the possible consequences of both practices. The purpose of this article is no to endorse any product. It is not to be used as an enterprise MDM-related product guide. Business owners and process overseers, specifically practitioners of supply chain and logistics, enterprise architecture, and any other fields that contribute to enterprise architecture may benefit from reading this article. Senior and operational level managers, who are involved with accounts payable (AP), accounts receivable (AR) master data, or related areas, such as enterprise integration, business intelligence, infrastructure, and solution architecture, may also find this article beneficial.

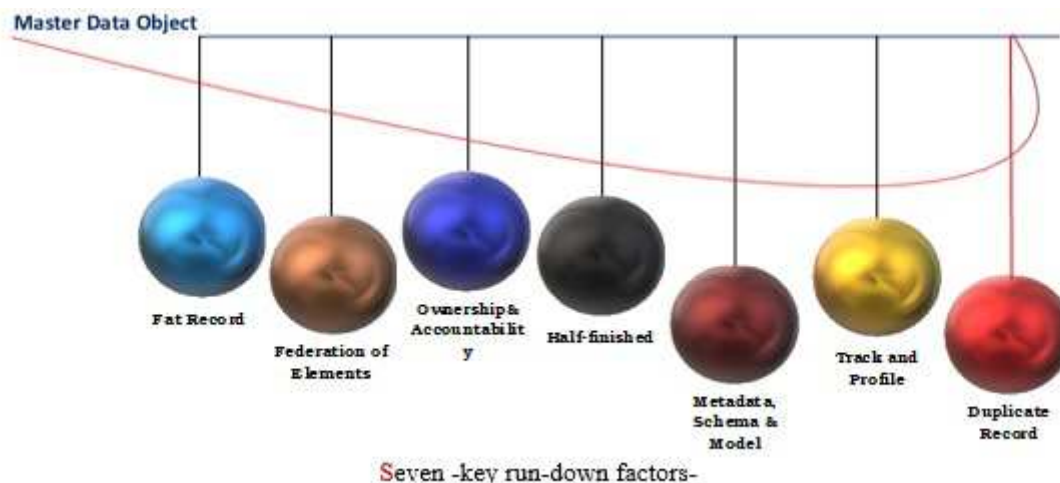
### Introduction

Envision a company with bad data and perfect process mapping. Such a company may suffer from lost revenue since inaccurate data leads to higher consumption of resources, higher maintenance costs, negative publicity on social media, lower productivity, etc. The company would need to erase its old data and recollect new data, resulting in more time and money consumption. This is a red flag.

On the other hand, a company with good data and bad process may spend a lot of time attempting to rectify the process and reallocate its resources to improve data quality. However, this is not as expensive as fixing the downright bad data.

According to Gartner research, "organizations believe poor data quality to be responsible for an average of \$15 million per year in losses." Larger businesses with many customers, employees, suppliers, and multiple units in various geographical areas are at a higher risk of encountering poor data quality.

"Master data is the consistent and uniform set of identifiers and extended attributes that describe the core entities of the enterprise."- gartner.com



**Fat Record:** Businesses collect a lot of attributes necessary for their requirements. Depending on the business, material master, article master, business partner, and all other assets need different attributes. For example, material master data usually uses more than 250 attributes, which may be plant data, sales, purchasing, accounting, warehouse data, etc.

A *Fat Record* will hold many attributes, depending on the business. However, if we are unable to manage the business-critical attributes effectively due to the huge quantity and unstructuredness, the business and custodian might not know the significance of the business dependent attributes.

It is extremely important that large attributes of any business object are kept in a concise, business critical manner.

**Federation of Elements and Records:** Organized view of elements and federation of functional elements are key concerns for business groups and the data custodian. A business entity's grouping, classification, and hierarchy can make assessment, auditing, and overhauling simple. Central data elements of the object should be at the top of the schema and then categorized by functional grouping.

**Half-finished:** Information should be complete. Missing data can lead to misleading analysis and results. Businesses must spend time and resources attempting to recreate and recover the lost data. Some businesses may not be willing to do so and, instead, may leave these records unused. Thus, setbacks in productivity timelines, loss of trust from customers, and data repair/replacement costs are all effects of unfinished or missing data.

Data is a digital asset that is any kind of information. In any case, every member information is valid and indispensable.

Suppose we have incomplete equipment master data, the core functional attributes such as type, function, capacity, and age could be left undefined. This causes ambiguity in the use of the equipment and is harmful for business.

**Ownership & Accountability:** Unsteady Ownership and Accountability lead to half-finished and therefore, unused records. Businesses with customized, effective governance models will have higher quality data, since management responsibilities, roles, accountabilities, data flow, and other guidelines are strictly defined and put in action. Governance operating models provide increased effectiveness and improved coordination, leaving little room for mistakes.

It is highly encouraged to improve data quality through establishing structured schemas, a hierarchy of responsibilities, process flow documentation, and a clear set of *To Do & Not to Do* tips.

**Track and Profile:** To avoid inconsistent, inappropriate, or half-finished data and to have quality data, we need data profiling and change tracking, that is keeping track of who, what, when, and why.

**Metadata, Schema and Model:** The foremost objective of a scheming data model is to maintain an accurate, comprehensive representation of the objects in the application. A poor data model leads to deprived data. Every data object has its own schema attributes, and set of keys. Objects need to be keyed accurately- primary or foreign. We then need to identify and define the relationships and associations between different such objects in the entire database, creating organized schemas.

In an enterprise, objects can be a multitude of things. Hence, it is crucial that detailed information regarding each entity is stored in the database and characterized into various fields, called attributes, whose details are in an organized manner.- possible by skilled , not data operator.

Metadata that is data about data. An example of this is data type, which can be char, text, or numeric.

Once again, to avoid inconsistency, the model should have reference values, key mapping, hierarchy, classification, grouping, etc.

**Duplicate Record:** There are a lot of possibilities through which records in a system can be duplicated. In addition to the list of causes of poor data and a bad process, duplicate records and validating duplicates can also result in lots of time-consumption. Duplicate records may be a result of unpredictable source data and inadequate reference and hierarchy data due to heterogeneous systems such as the varied characterization of special characters, punctuations, noise words, abbreviations, and some identifications. Transforming and substituting such sources/buzz words may reduce the risk of creating duplicates.

**Seven** key sources of duplicate occurrences during runtime:

- a. *Lack of ownership & accountability.*
- b. *Lack of skills - ownership comes from skills*
- c. *On-flight urgency*
- d. *Inconstant change tracking & monitoring*

- e. *Absence of data profiling*
- f. *Bad configuration/set-up*
- g. *Not having real-time data enrichment with third party systems.*

Defining a desired level of matching across records and identifying duplicates can help correct and avoid duplicate entry.

In the digital age, companies are cold-shouldering the quality of resources (relevant & skilled) and ethical traditional techniques and simply looking at new tools and technologies to acquire data. However, the quality of information is a success key for any organization, and avoiding the listed causes of poor data and a bad process can help us focus on improving data quality.

As we have learnt from master piece of wooden block (how precise it would be) for casting, master data object should have perfect dimensions (99.9%) and unique (single truth of record) in today digital world.

#### References

- [www.gartner.com](http://www.gartner.com)
- <https://en.wikipedia.org/wiki/Ownership>
- <https://en.wikipedia.org/wiki/Accountability>

#### About the author



Subbaiah Bala received the B.Tech. Degree in mechanical engineering from Sri Venkateswara University India, in 1992, and post diploma in computers. S4/HANA professional certified consultant by SAP SE.

From 1993 to 2001 worked for HIL (a Birla group) and Voltas Limited (a TATA enterprise) as Sr. Engineer. He was a Sr. Engineer with Voltas Limited (a TATA Enterprise) and HIL, India a leading high-quality specializing in air conditioning and cooling technology vendor.

Bala has worked for several international notional companies, such as Wipro, BP, GM, Goodyear, Sysco, Cardinal Health, Johnson & Johnson and Norfolk Southern on ERP applications, specialized on enterprise master data management. His interests are in the fields of RAP, Solar Drone, AI and (IoT), including protocol design, and experimentation.

### The Nine Pillars of Industry 4.0



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