

MASTER DATA GOVERNANCE : SYSTEM DRIVEN APPROACH – A TRINAMIX CASE STUDY

Enterprise wide systems are backbone of any organization. These systems are implemented with the objective of improving business process efficiency and providing effective decision-making capabilities. It can work in harmony if and only if the foundation of data is strong. Weak foundation leads to inconsistencies of results, reduced ability to communicate across the systems and eventually it leads to a trust deficit by end users.



Broken Communications

Our client has grown to become Western Canada's leading network and content experience company, delivering the highest-quality consumer, business, and content products. It serves 3.2 million customers, including 1.9 million subscribers to Internet and more than one million Home Phone customers. Trinamix was engaged by the customer to implement Oracle MDG along with various Oracle Planning and Supply Chain Cloud products.



Inconsistent Reporting

Organizations are unable to leverage full potential of ERP systems if the Master Data Governance is not mature. Trinamix was engaged by the customer to investigate the issues and pain points of its Master Data Governance program. This case study showcase how Trinamix approached the problem of at hand and how it implemented an effective Master Data Governance philosophy and Master Data Management processes for a Calgary based Telecommunications company.



Weak Foundation



Product, Customer and Supplier are three most important master data elements for any organization. Most of the enterprise wide systems come with built-in functionalities to enable an organization to manage its master data effectively.

However, implementation of the enterprise system by itself does not lead to effective master data management. It is often observed that post implementation; data still lacks integrity, it has inconsistencies, integrations between different systems is not seamless and needs frequent error corrections and monitoring, has far too many manual touchpoints and grey areas that requires a call to be taken by an 'experienced' resource. The coveted '360-degree view' of the master data remains elusive.

Our client implemented Oracle Fusion ERP applications to manage its business processes in supply chain planning, inventory, procurement, sales and distribution. There are several other function specific systems such as Warehouse Management (WMS), Customer Relationship Management (CRM), Customer Billing System (CBS), ticketing management, Compliance systems and many others used to run the business. Oracle Product Data Hub is the source of truth for product master for all the systems.

All allied systems are integrated with Oracle Product Data Hub system and depend on the product master data fed by it for smooth and effective functioning. Quality of Product master data directly impacts the way customer procures material, manages its inventory and sells goods and services to the customer. Indirectly it impacts reporting accuracy, assessing cost of inventory, on-time customer delivery and ultimately customer experience.

What is Master Data Governance?

Data governance is a set of principles and practices that ensure high quality through the complete lifecycle of your data.

It is a practical and actionable framework to help a variety of data stakeholders across any organization identify and meet their information needs.

Our client started using Oracle Cloud Product Data Hub (PDH) to manage its item master since 2019. It also has other Oracle Cloud ERP products implemented to run procurement, inventory management and sales and distribution, Supply Planning and Global Order promising functions. In addition, there are other systems integrated with core ERP through middleware and data exchanges.

Initial Oracle Product Data Hub implementation enabled basic item creation. However, the process still lacked a robust governance structure. It had several issues that were impeding the utilization of full potential of the state-of-the-art Oracle Cloud ERP system. Trinamix and customer's team jointly conducted workshops to identify pain points and root causes for that were contributing to this. The outcome of the discovery exercise was:

Person dependent and not process dependent

- Item creation and maintenance activities are primarily driven by tribal knowledge of experienced resources rather than system driven rule-based process
- Requestors of the item master are not following any standard set of guidelines either

Data Inconsistency - Semantics, Business Rules

- Lack of consistency in the inputs provided by requestors leads to increased back and forth communication between item master team and requestors
- Lack of enterprise wide data standards (naming conventions, meanings) leads to poor quality, item duplication and inconsistencies in reporting
- Lack of in-built system driven data validation for accuracy, completeness, and consistency

Manual Interventions, Non-integrated request forms

- Lack of workflow driven item creation and change management process leads to delays in creation and corrections
- Non-integrated request forms - adds process inefficiencies due to increased human errors
- Lack of system driven approvals leads to erosion in data ownership
- Too many manual steps and efforts spent for e.g. assigning items to all orgs

Ineffective collaboration across functions and low trust on data

- Siloed existence has led to ineffective collaboration between different functions and has not improved post PDH implementation
- Not addressing pain points of one function by other ferments inefficiencies
- End users and consumers of data develop a trust deficit and do not rely on system generated reports and analytics

Setting up Data Governance Culture

With the pain points clearly identified, Trinamix team in collaboration with customer’s core project team produced a charter for the Master Data Governance program to address those pain points. The charter included clearly defined Vision, Mission, Goals and Objectives of the program. Mission emphasized quality and reliability aspects of the data. Vision focused on creating an organization culture where data is trusted implicitly to take impactful discussions.

Project team developed a data governance model that interwove the three crucial pillars: People, Processes and Technology

Guiding Principles:

Ownership

Master Data is an Enterprise asset ,and will be managed as with other assets to prevent damage, control use, and maintain value.

Accountability

All master data has an identified functional owner, Organizational responsibility needs to be assigned so that a single group is accountable for each data element.

Collaboration

While master data will be strategically stewarded by a single individual, other domain data stewards will be involved in decision making to ensure enterprise needs are addressed.

Transparency

Master data elements will be documented from a business perspective and a single source of truth will be determined.

Responsibility

Master Data Management is the responsibility of all employees and adherence to common practices is expected.

Total Quality Management

Ongoing business processes must be in place for maintaining master data integrity, including periodic audits to measure data quality.



People

- Owners & Stewards
- Producers &
- Consumers
- Quality Analysts
- QC Programmers



Process

- Item templates
- Business Processes
- Business Rules
- Data Rules
- Critical Data Attributes



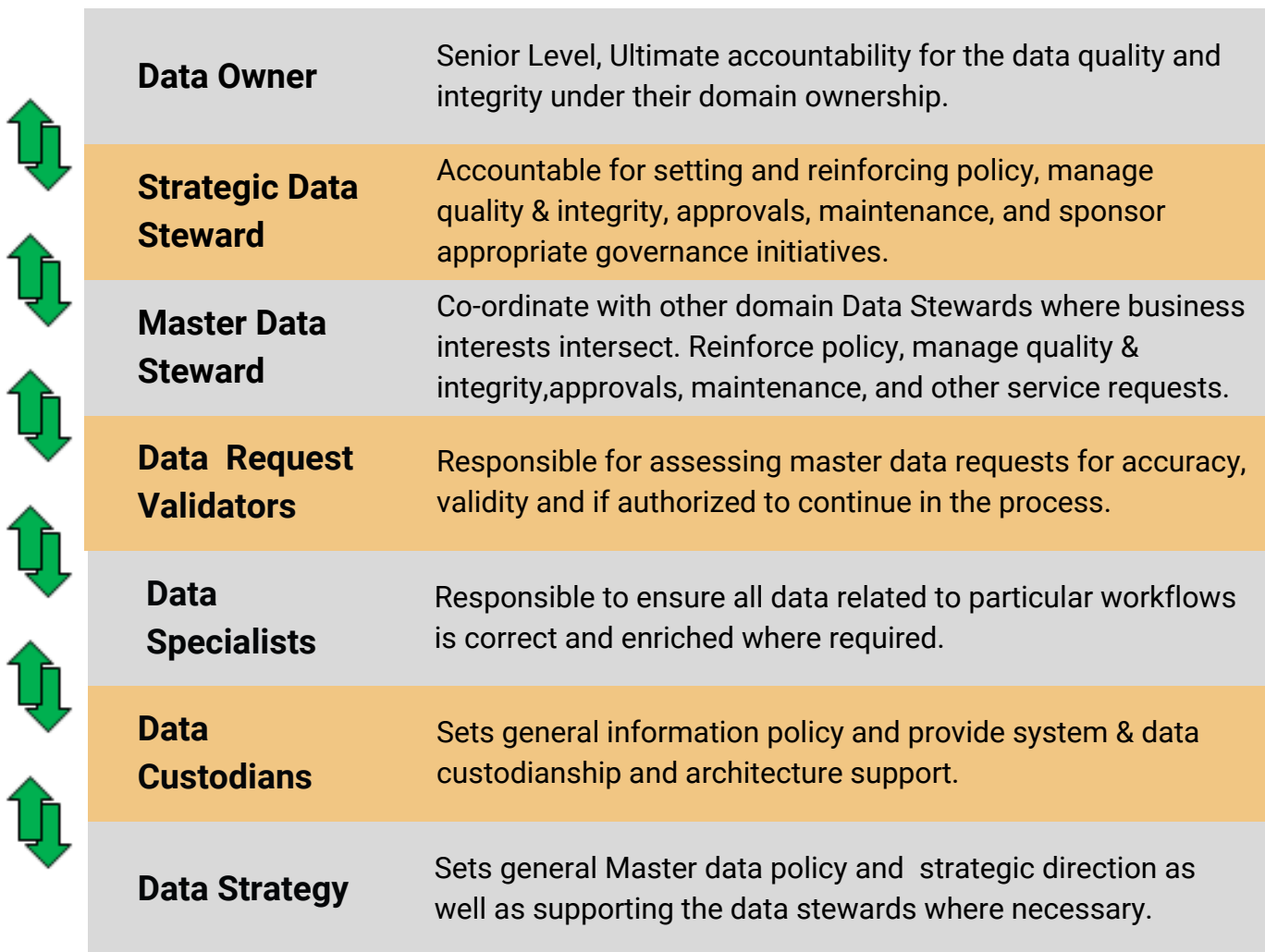
Technology

- Master Data Repository
- Item Request Form
- Item Workflows
- Standards repository

Trinamix suggested a data stewardship approach. Data Stewardship is closely related to Data Governance and relies upon Data Stewards and Data Content Owners. Data Stewardship can be thought of as the implementation of the data management processes defined in the Data Governance Model.

Under the umbrella of Data Governance, Trinamix recommended the formation of a Master Data Management team. The primary role of Governance team is to focus on the quality of an area of master data through data governance and data stewardship.

The Data Governance model was thus coupled with Data Stewardship to clearly establish program ownership at various levels.

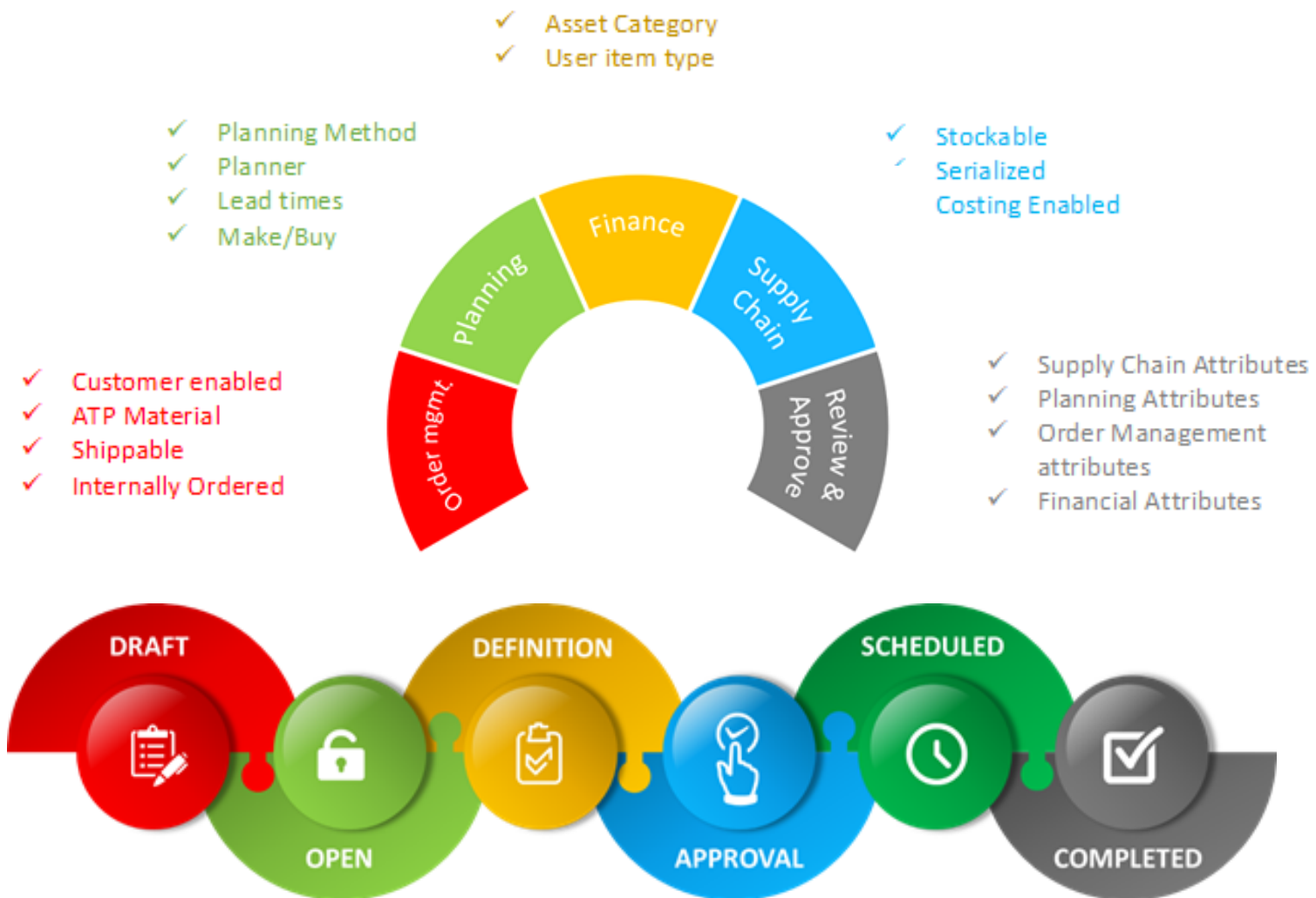


Governance Structure

Enabling Process :

Trinamix helped customer setup a Data Governance process framework to ensure that any item created and maintained in the system will follow appropriate process and there will be no deviation. Trinamix and customer team identified three major processes:

- **New Item Request (NIR)** – requests from business units to add new items into the master data for future consumption
- **Change Item Request (CIR)** – requests from business units to change attributes of existing items in the master data
- **Archive (Retirement or End of Life) Item Request** – changing the status of an item so it is no longer active and available for consumption



As explained at the beginning of this article, Oracle Product Data Hub comes with in-built features to setup a robust and scalable Master Data Governance program. After setting up People and Process pillars of the program, Trinamix team provided necessary fuel power by harnessing features from Oracle Product Data Hub. Solution design and Implementation of these features was done with a firm eye on the program's guiding principles and addressing current pain points. At the same time, the solution has been made scalable to allow vertical (across territories and business lines) as well as horizontal (across functions such as Supplier and Customer MDM) expansion.

Trinamix team built an item request form using Oracle Product Hub functionality of Extendible Flexfields. This form ensured that all item requests are submitted with all the required inputs. In addition, rules were built into the form to populate dependent data elements.

Key Product Data Hub functionality enabled as part of the program are:



Workflow based new item creation and change order management

- System driven approvals
- Enables collaborative item enrichment
- Avoids duplicate data entry and back and forth communication
- Avoids data entry errors



Intelligent New Item Request Form

- Item request form in Oracle PDH using Extendible Flexfields - eliminates manual efforts in validation and creation
- Auto population of attributes based on business rules
- All communication driven through system eliminating email/offline conversation and chances to 'slipping' through the cracks



System driven data symantic (item business) rules

- Eliminates item number proliferation by catching duplication
- Auto generation of item numbers
- Validation of key item attributes to functional and naming standards
- Auto population of item attributes based on predefined business rules





Item Master Class Structure and Data Security

- Enable role based access to maintain data integrity
- Enable function based access to eliminate offline work without compromising data security
- Organization access to provide right data to right people



Audit trail and measurable KPIs

- Meet regulatory requirements
- Capture change history on item as well as attribute level
- Decided on KPIs to Measure Master Data health
- Develop Reports and analytics to measure KPIs

Key takeaways and future roadmap:

Customer's shift from user centric governance model to a collaborative, process driven, and technology enabled data governance model is yielding expected results in Product Master data. The model is scalable to expand to other two critical areas of master data – namely Supplier Master and Customer Master.

The new Master Data Governance culture has been positively embraced by the organization with a desire to bring continuous improvements. The backbone of the model – data standards, data dictionaries, creation, and maintenance processes – must continue to evolve to cater to changing business requirements. This can only be enabled by sticking to the governing principles.

There is no one size fits all solution for a robust Master Data Governance program. The key is to understand current landscape and pain points, clearly spelled out program principles and assessing the path by considering desire to change. Trinamix was able to achieve this success due to a strong partnership and sponsorship and support from Customer's leadership and project participants.

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