isCDO

30-60-90 Day Action Plan

Office Of The Chief Data Officer

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ISCDO Best Practices Document

The purpose of this shared document is to create a best-practice process by which CDO's, who first enter an organization (in their first 90 days in the position), can have a guide which contains a blueprint of concerns, deliverables and considerations.

This document was originally created by Robert J. Abate using materials from his previous positions and content from many industry-recognized CDO's and is being turned over to the ISCDO community for input and improvement.

Reel free to reach out should you require any additional information or want to discuss or debate content with myself of any members of the ISCDO team.

Good luck on your first 90 days and happy hunting!

Warm regards,

ISCDO Board Members

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Introduction

Forward

This document is intended as a template to aide individuals in fulfilling the role of the Chief Data (or Digital) Officer [CDO] position – which it in itself is a conundrum, in that CDO's can have vastly different organizational reporting, roles and responsibilities. This best practices' document has been reviewed by a number of industry and business thought leaders and contributions from many have been included in this industry-agnostic collaborative effort. We believe that this will work just as well in private industry as in public positions but realize that each person must customize this to their corporate culture and their corporate defined responsibilities – as each CDO or even CDAO can be uniquely challenged.

Why & Why Now?

One of the key points mentioned by Derek Strauss, former CDO of TD Ameritrade, was that now you have been hired into the role as a CDO into an organization, you need to bring both the business and technology teams together in your vision for the future. Selling to only one side of the house will ultimately result in failure.

The CDO's Value Proposition

The second key point mentioned by the IsCDO leadership team, and then seconded by Andy Lambert, another industry thought leading CDO, was what value will you bring to the organization. Many C-level executives think of value in terms of ROI and there needs to be a re-education of these executives to Sustained Business Value [SBV].

The value that a Chief Data Officer brings to an organization mitigates risk and improves compliance (CCPA, GDPR), improves decisions, standardizes information, reduces costs of infrastructure (by removing duplication of data), reduces inaccurate data (data quality), often manages the organization's business intelligence and analytics efforts, and implements data governance.

With the newest buzzwords in data being Artificial Intelligence [AI] and Machine Learning [ML] (including predictive and prescriptive analytics), many organizations don't' understand that the underlying value of enterprise information management best practices are required (as 80% of data scientists time is spent finding and cleansing the data for use) and data management will improve efficiencies of these costly resources.

The needs of an organization to maximize the value of one of its most precious assets, data, is why the CDO is looked at as the corporate SME on the value of data and must be an evangelist, advocate and salesperson for long term sustained business value.

For a CDO is no more or less than a trusted advisor to the organization that they serve in.

Building Trust

Trust is earned by execution (a direct quote from Andy Lambert) is truer today then ever before. A CDO must position him or herself as a strategist and provide the executives with a vision and on to every team (business and information technology). Getting the organizations house of data in order is job number one and what you are doing must have and show value.

The end result of using this template as a roadmap for your first 90 days as a CDO, will give you a vision of what has worked in the past for your predecessors and what will work in the future.   Pick and choose what fits into your organizational culture but realize that building trust (not by just delivering a few low hanging fruit projects) is what will sustain your career and longevity within any organization. Some data projects (data inventorying using ML toolsets, data lakes, analytics projects) can be completed in sprints but the long-term goal (and in turn long-term programs and not short term projects) that provide value include enterprise information management (data inventory, metadata catalogs, data quality, classification, etc.), alignment of business architecture to the data architecture, and data science programs, and data democratization and monetization is what a successful CDO can expect will demonstrate value in in turn build trust.

What is not addressed in this plan is a scorecard or other mechanism to demonstrate that you are succeeding in the role. We will leave this to a future revision of this document.

With these thoughts in mind, we present a best-practices approach for your first 90 days in the position of CDO. Good luck is when preparation meets opportunity, and we wish you the best!

CDO Role & Responsibilities Vary Greatly

CDO roles, responsibilities, job descriptions, and in turn even their titles, vary widely based upon their organizational position, industry, and geographics location and this should be considered when utilizing this best practices document. The IsCDO has created a best practices "CDO Job Description" which can be referred to as well to provide the industry best-practice roles and responsibilities for a CDO (CDAO, CAO, etc.).

30/60/90 Day Action Plan – Office of CDO

30 Day Plan

Management Activities

- Meet with superior(s) to prioritize what is expected within the first three months
- Set up communications plan (phones, fax, computer, office, business cards)
- Orientation – Identify key people you will need to interact with and setup initial meet and greet with management, subordinates, peers, and support departments
  - Travel if required to be identified in a travel plan
- Schedule meetings with peers to understand interactions and challenges between teams with data, current reporting structure(s), and emphasize that everyone owns and is a caretaker of the organizational data (just as if asset).

Corporate Activities

- Submit paperwork to HR and complete required training / processes
- Learn company culture through executive mentor relationship
- Learn the business units and corresponding IT groups within the organization
  - Gain understanding of alignment and reporting structure(s)
  - Multi-disciplinary team members, with which I will interface.
- Obtain corporate enablers (cards, systems, s/w) and learn processes
- Research current state of data within organization
  - Master Data Management & Data Privacy practices
  - Compare against best practice frameworks: DAMA, Gartner ICF, EDMC
- Identify key corporate systems – procedures for paperwork, reports, e-mail
  - SAP, Workday, SalesForce, etc.
- Interview and evaluate key resources in the IT and data organizations
- Rapid evaluation of Data Privacy (CCPA/GDPR/…) in connection with key organizations (legal, marketing and HR)
- Start process of securing or utilizing existing data profiling and automated classification to create a data inventory for the organization

Key Deliverable – Data Vision/Value Proposition for Office of CDO (Day 30)

- Align with organization's strategy, competitive positioning, and future plans
  - Inside Org: CxO, IT Orgs, HR, Regional Ops, Legal Affairs, Marketing, Brand Management, Supply Chain / Distribution, and Procurement
  - Outside Org: ACI/KIM ACI, Major upstream suppliers, Major downstream distributors, regulators, industry advisory bodies, and market analysts
  - Acquisitions & In-Flight Projects: Prior and planned integration programs
- Create document that describes the vision, value and areas of accountability
  - Define the Office of the CDO Mission, Vision, Value to organization
  - Describe the areas where the Office of CDO provides trusted advisory
    - Data Strategy – Enablement, Sources, Architecture, Planning, DG, DQ, Compliance, Standards, Metadata, Master Data, Records Mgt.
      - *Program, Responsibilities, Accountabilities, Authorities*

Key Deliverable – Current State, Data Management Practices (First Draft)

- Identify the current state of data management compared against best practices
  - Integration analysis
    - Current programs / priorities in flight
  - Identify the big questions in the organization
    - Operational efficiencies
    - Productivity
    - Outcomes
    - Digital footprint and impact
    - Current affordability and performance
    - Future affordability and performance.
  - In flight programs analysis (i.e.: Customer usage in projects are key)
    - PII analysis & usage
- Identify the initial future state of data management compared to best practices
  - Integration analysis
    - Understand enterprise architecture and future plans
  - Start development of future plans
    - Start matrix of needs vs. priorities
- Identify initial gaps between current and future state

Key Deliverable – Data Ethics, Privacy & Data Protection Plan (First Draft)

- Working with legal, start development of a privacy and ethics statement
- Working with IT, start developing a data protection/disaster recovery/response plan
- Develop Data Privacy and Data Ethics task forces and identify checklist for people, processes, and technology

Key Deliverable – Data Strategy Presentation & Document (First Draft)

- Executive Summary
- Introduction to the CDO Office & Functional Responsibilities
- Opportunity Statement
- Scope
- Vision & Guiding Principles
- Goals & Enabling Objectives
- Essential Capabilities
- Conclusion & Next Steps

60 Day Plan

Management Activities

- Review first 30 days performance with management ensuring all plans for the first period are completed and gain feedback
  - Continue to dialog with management team for performance observations.
  - Continue the high level of communication with co-workers to establish teamwork and working relationships
  - Coordinate departments by fine-tuning ongoing interactions
  - Travel to headquarters and other required locations
- Continue meet & greet with peers to identify issues and satisfaction with data
  - Build rapport and relationships with partners and peers

Corporate Activities

- Master computer applications and other organizational functions
- Continue to master product, industry knowledge and future plans / designs
- Join appropriate associations/organizations (standards bodies, etc.)
- Current state is being captured and socialized along with assistances
- Continue process of securing or utilizing data profiling and automated classification to create an online data inventory for the organization

Data Team Activities

- Work efficiently/effectively to ensure optimum time management of data org.
  - Start development of an Organizational Talent Assessment and Plan noting the key roles required and investment plan required
  - Develop a recommended organizational structure for the optimal functionality of the CDO organization within the above plan
- Learn and identify which areas are the "low hanging fruit" for cutting cost and start research for an implementation plan
- Meet with key leaders of strategic programs and understand CDO's role in delivery (without creating impact or committing to delivery)
  - Key projects names (limited to 6)
- Working with architecture, develop a strategic plan for initiatives

Key Deliverable – Current State, Data Management Practices (Revision)

- Socialize the current state of data management with peers
  - Integration analysis with current programs / priorities in flight
  - Identify the big data issues in the organization
  - Loyalty programs analysis
  - Areas where Office of CDO can provide consultative guidance
- Identify the future state of data management compared against best practices
  - Integration analysis
  - Develop matrix of needs vs. priorities
- Continue Gap Analysis evaluation

Key Deliverable – Data Ethics, Privacy & Data Protection Plan (Final)

- Working with legal, publish a privacy and ethics statement
  - Website updates for Data Privacy / CCPA initiated
- Working with IT, publish a data protection / disaster recovery-response plan

Key Deliverable – Data Governance Working Group (Task Force)

- Identify key stakeholders and approach about joining DG Working Group
- Hold DG Task Force meeting and create action plans, requirements, committees

Key Deliverable – Data Strategy Presentation & Document (Revision)

- Review presentation with management team and gain buy-in
- Develop presentation plan (to whom, ordered and when / where)
- Schedule presentation date (Day 91 is the initial goal)

90 Day Plan

Management Activities

- Monitor first 60 days activity level and results and modify plan if necessary
  - o Obtain feedback on performance from CIO and discuss plans and adjustments.
  - o Develop and implement "game plan" (higher goals for 6 months/year).
- Participate in peer team meetings – ask to join teams (seek out areas where CDO's office can provide leadership or skill sets that are useful to their teams)
  - o Continue to develop data driven culture artifacts
  - o Create messaging of data driven culture into organization
- Continue to track performance to assure personal and business goals are being achieved
  - o Provide action plans, if necessary, to improve
- Present to management team the 90-day plan (Current/Future/Gap) results
  - o Show initial results of data profiling and automated classification visualization to organization to give an understanding of the magnitude of the problem / challenges

Corporate Activities

- Fine tune knowledge of products, services, and customers
- Develop an "Low Hanging Fruit" action plan for the implementation of CDO initiative
  - o Semantic Data Understanding of Enterprise
  - o Data Privacy Action Planning
  - o Data Governance Action Plan
  - o Master Data Management Action Plan
- Meeting with key vendors to create working relationships
  - o Applications: SAP / Oracle / Amazon / Google ?
  - o Hardware: Unix Servers, Dell / EMC Backup, Cisco / Brocade ?
  - o Talent: Big 4, Cognizant, Wipro ?
  - o Operations Support: Talent Acquisition ?
- Come up with new and creative ways to communicate CDO's goals/mission
  - o Get input from team and manager on PPT deck
  - o Travel to meet with business partners and vendors to present CDO value to their respective organizations
- Develop a strategic implementation plan for the CDO organization to implement a Big Data and Governance Solution

Key Deliverable – Data Management Practices Analysis (Final)

- Publish the current state of data management, proposed future state and gap analysis after review with peer group
    - o Integration analysis
    - o Develop matrix of needs vs. priorities
    - o Develop investment analysis against future state

Key Deliverable – Data Ethics, Privacy & Data Protection Plan (Final)

- Working with legal, publish a privacy and ethics statement
    - o Website updates for Data Privacy / CCPA initiated
- Working with IT, publish a data protection / disaster recovery-response plan

Key Deliverable – Data Governance Working Group (Task Force)

- Evaluate with IT DG tools and capabilities against Industry Checklist
- Hold DG Task Force meeting and create action plans / budgetary requirements committees

Key Deliverable – Data Strategy Presentation & Document (Final)

- Final updates to Future State & Gap Analysis
- Final updates to Funding Plans
- Develop presentation plan (to whom, ordered and when / where)
- Schedule and hold presentation date (Day 91)

Appendices

30-60-90 Day Location Planning

Week Starting:	Location	Planned Meetings

Hypotheses Requiring Research

These hypotheses will be areas that the CDO and data team researches over the next 90 days:

- **End-to-end strategic information plan – "treating data as an asset"**
  - Do projects incorporate the capture of business information (terminology, usage, prime location, data lineage, etc.) into a single repository about the information (metadata repository)?
    - If every project starts with data research, the savings can be enormous
  - Are projects are one-off's to accomplish a specific need for a business line?
    - Do business projects utilize a structured or integrated data management approach?
    - Do projects utilize a common data foundation (i.e. Data Lake)?
    - Is master data management and data rules considered in deployed solutions?
  - Is information structured across the businesses and silo's (even sub-silo's)
    - Is there reuse of hardware, data and/or licenses between silo's?
    - Is there standardization of BI solution development between silo's?
  - Is there a documented data lifecycle where compliance issues can enter the environment?
  - Is there a documented data privacy policy and appropriate data ethics policy?
  - Is there a formal Data Governance program over Master Data and Reference Data?

Example Data Domain or Enterprise Analysis
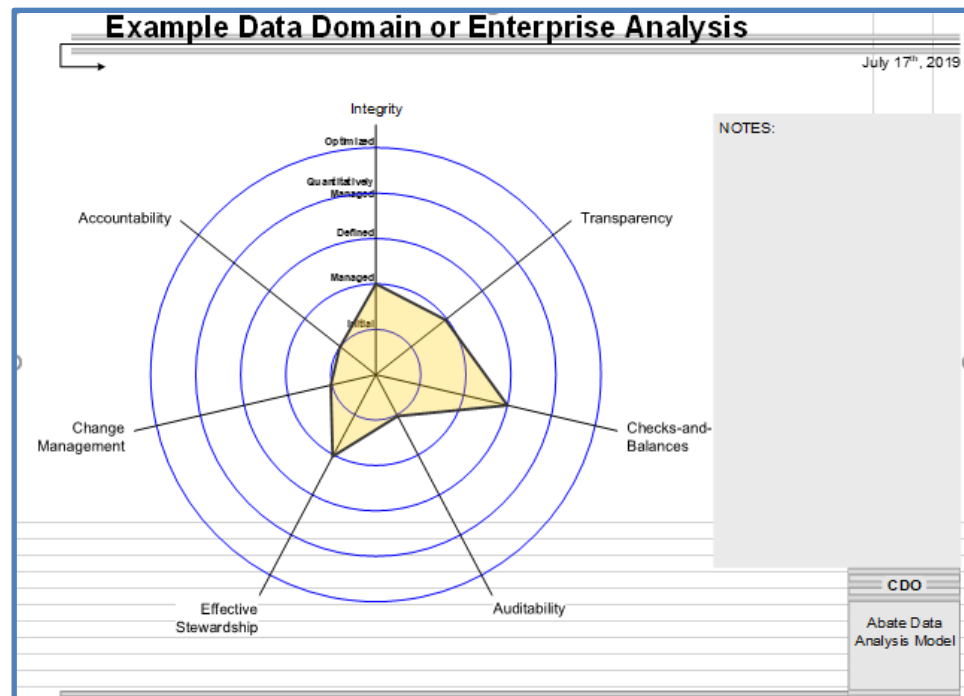
- **Analysis to Best Practices**
  - Data Inventory Completed
  - Critical Data Elements [CDE's] Identified
  - Data Governance
  - Data Quality Management
  - Data Architecture
  - Data Development (Apps)
  - Data Security Management
  - Data Privacy Management
  - Data Warehousing / Data Lake Management
  - Data Source Management (internal & external)
  - Document & Content Management
  - Metadata Management
  - Data Integration Management
  - Best Practices:
    - DAMA Data Management Framework (DMBoK)
    - Enterprise Data Management (Gartner ICF)
    - TOGAF (Data Architecture)
    - ISACA (Data Security Activities)

- **Data Traceability**
  - Data Lineage
  - Data Impact Analysis

- **Self Service Reporting**
  - Tools and glossary available for users to enable self-service to data?
  - Roles, responsibilities and tools available to support
  - Integration into SSO and security frameworks

CDO Draft Organization Plan (High Level Roles)

The following drawings identify the current state and proposed organizational plan with areas of responsibility highlighted.

This plan was developed utilizing a best-practices model (derived from industry critics such as Gartner, Forrester, etc.) for a Chief Data Officer [CDO] organization where all the data functions are resident within a single organizational unit.

CDO Proposed Future State Organization Element Diagram

CDO Organizational Talent Assessment & Plan

Organizational Talent Assessment

After having completed interviews with ….

The current organizational structure appears below.

Data Group Current State Organization Diagram

Current Organizational Talent Strenghts

The current organization has talent in the following key areas:

- Database Administration [DBA]
- Data Architecture
- Data Services (ELT) Development (not a vital skillset)
- Solution Architecture
- Platform Engineers (similar to DBA)

We can see below how this talent ranks in the overall scheme of performance.

Current Team Nine-Box Performance Graphic

Generally, the team has many of the core capabilities and these talents can be expanded easily with training in newer, more mature toolsets. However, there are limitations to the training of the team and its leaders and this will be discussed further in the document.

Placing The Right Talent Into The Right Roles

The current CDO organizational structure has…

Organizational Talent Plan

With the advent of the assessment of talent, the CDO's office is proposing a reorganization to a future state model as shown below:

CDO Future State Organizational Model

CDO Year One & Two Investment Plan

There are two parts to the CDO investment plan, the talent required to staff and maintain an organization (Operational Expense) and the investment in Hardware, Software, Firm-Fixed-Price [FFP] Consulting, and Training (Capital Expense).

Of this, …

Operational Expense [OpEx]

The following plan is a two-year plan to augment and staff.

Senior Management Team

The talent plan calls for ….

Implementation Teams

The implementation teams will ….

With this in mind, the following operational investment plan was created for the future state of the CDO organization:

CDO Office Investment Plan Year One (OpEx)

CDO Office Investment Plan Year Two (OpEx)

Notes

1. This investment plan is not inclusive of the

2. The size of the MDM team was calculated using the reference data from the Hackett MDM report.

   1500084_MasterDat
   aMgmt.pdf

3. The organizational plan that supports this investment and includes all resources that were identified and placed into the appropriate teams is attached below.

Capital Investment [CapEx]

The strategic investment in Hardware, Software, Firm-Fixed-Price [FFP] Consulting, and Training will be required in order to ….

Prioritizing Investments

In order to meet our goal of having a fully functional and highly performing CDO organization in two years, I have identified investments in order or priority for each investment year. The prioritization is based upon first establishing the capabilities and then implementing to these capabilities.

The following spreadsheet was used to derive the two-year plan for both OpEx and CapEx expenditures.

Year One Investments

In the first year, the CDO organization would focus on enabling or starting the capabilities in ….. These investments would include:

- Investment #1
    - CCPA / Implement Data Transparency
        - Scan using machine learning/rules-based tools to identify and inventory all data elements, profile, classify and build a data catalog.
- Investment #2
    - Implement Data Ecosystem Management & Traceability
        - Understand the movement of data within enterprise (lineage / impact analysis)
- Investment #3
    - Implement Data Trust (MDM, RDM, Data quality and Data governance)

CDO Office Investment Plan (CapEx) Year One
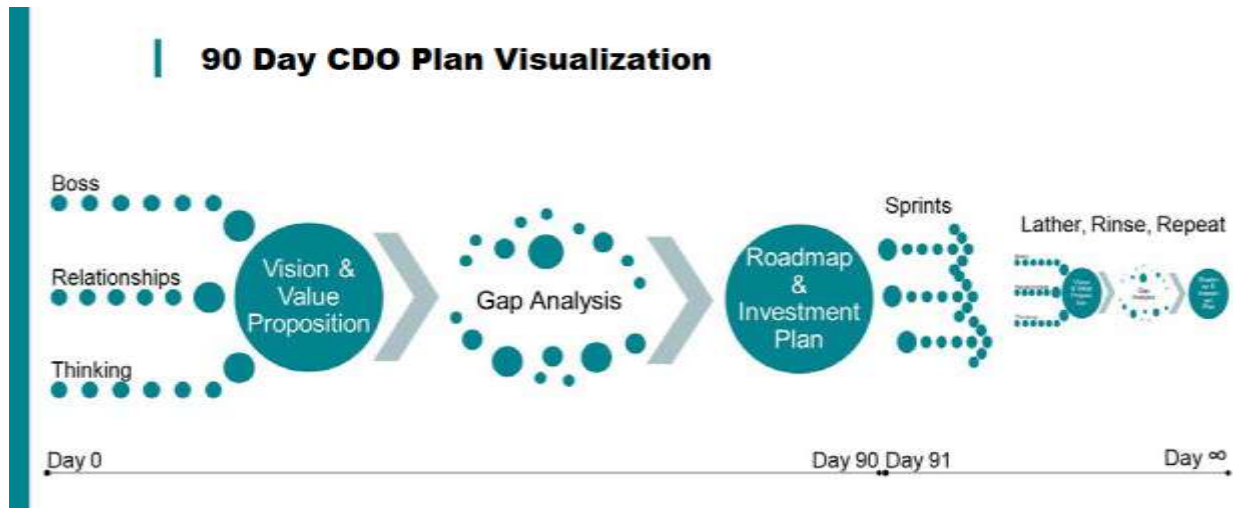
Year Two Investments

In the second year, the CDO organization would focus on expanding the capabilities in these spaces and would include ….

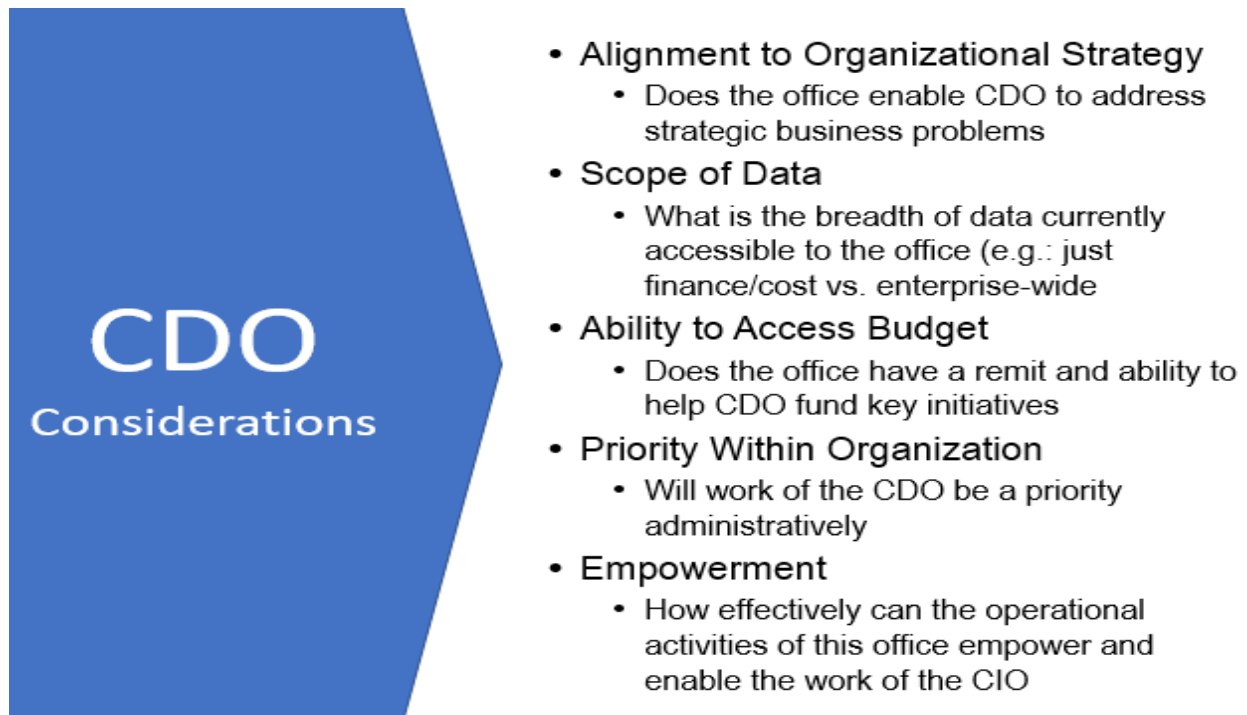- Investment #3
    - Item 1
- Investment #4
    - Area 1

Below we see a budget that is prioritized for the implementation of these Capital Expenditures:

CDO Investment Plan (CapEx) Year Two

## Visualization Of Plan (visualizations courtesy of past MIT CDOIQ Presentations)

High Level Considerations

- Alignment to Organizational Strategy
  - Does the office enable CDO to address strategic business problems
- Scope of Data
  - What is the breadth of data currently accessible to the office (e.g.: just finance/cost vs. enterprise-wide
- Ability to Access Budget
  - Does the office have a remit and ability to help CDO fund key initiatives
- Priority Within Organization
  - Will work of the CDO be a priority administratively
- Empowerment
  - How effectively can the operational activities of this office empower and enable the work of the CIO

Abate Information Triangle

Displaying the value of information to executives and using real world examples for comprehension.
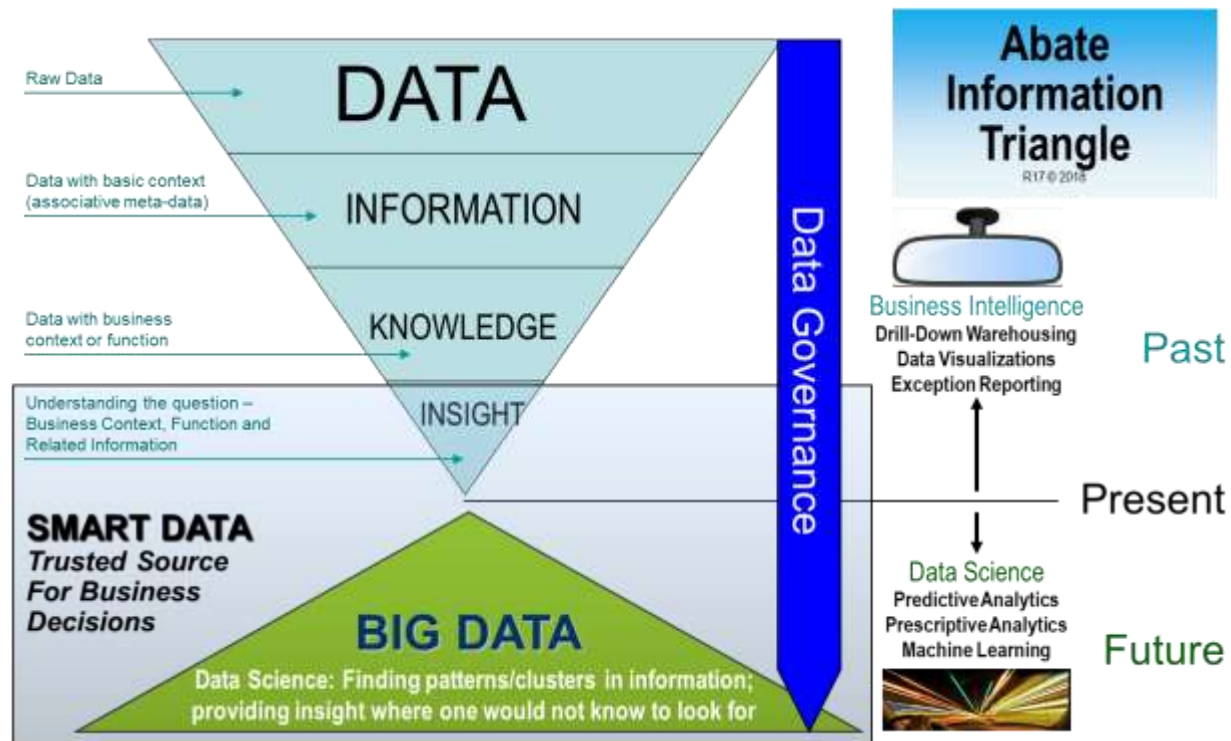
Given in the picture above the value of raw data such as the number "7" has no value.

Data with basic metadata "7 Chinese Restaurants" has little value

Data with business context provides more value "7 Chinese Restaurants within a 5 mile radius" is starting to provide knowledge

Smart data (data that has been cleansed, has high quality and is governed), that should be visible to right people, at the right time, for the right purpose, with the right credentials implies and understanding of the business question that is being asked "7 Chinese Restaurants within a 5 mile radius of Roswell Georgia that are Zagat's 5 star rated" – this person is looking to take out an important client/business partner and wants to utilize the information within the ecosystem to find an answer to an question.

Abate Enterprise Information Maturity Visualization

Displaying the maturity of the information assets to executives and using real world examples for comprehension.

This visualization is produced from an excel spreadsheet where after having the business or your team answers questions, is automatically generated. These questions were originally developed in 2004 by a team and revised in 20100 from individual contributors including: Dr. Peter Aiken, Martha Dember, John Zachman, David Marco, Dr. Arka Mukherjee, Dr. Anne Marie Smith, and Robert Abate.