Enterprise Data Strategy within Treasury

How Treasury Can Partner with Data Teams to Streamline Workflows and Reporting

The corporate treasury function relies on data inputs from multiple source systems including - but not limited to – treasury management systems, banks, FX trading platforms, ERPs, AR&AP solutions, and hedging platforms.

These systems should work in concert to support cash management, risk assessment, strategic decision making, and operational optimization – and though they individually contribute keyfunctionalities to this end - they necessarily form data silos in your organization where their core data is often misaligned, and useful information trapped.

This results in lost workflow efficiency, segmented functionalities, and suboptimal reporting capabilities.

Thus, it's imperative that these systems share data in a standardized way that unlocks all usefulinformation to drive streamlined operations and better insights.

This is best achieved when you deploy a proper **data strategy** and utilize a centralized **data lake.**

So how can your organization achieve successful data lake implementation guided by a data strategy?

Define Your Data Strategy

Generally – data strategy is a comprehensive, organization-wide plan that aligns how data is collected, managed, governed, and utilized with overarching business goals. See below rubric for 5 key steps that should be followed when defining your data strategy:

1 Validate Data

Begin by focusing on core data common to all of your systems. Think about root causes and resolutions for any core data point discrepancies between your business systems. Best practices here include automated monitoring and established data governance. (discussed in a later step) Your data lake's usefulness directly correlates to the accuracy of the data sets from your source systems which build it.

2 Design a MVP

(Minimally Viable Product) goal and milestone POCs (proof of concept) as your blueprint to build your data lake from. Data lakes can take 1+ years to reach a usable state, so understanding the scope and functionality that meet your business needs helps in setting milestones on your way to future state. Testing and validating subsets of data in POC sprints ensures quick MVP turnaround because they can be applied to your comprehensive enterprise data lake later on. This approach builds stakeholder confidence around the initiative as they see the value proposition realized in subsets of data and begin to identify more use-cases that could benefit from the data lake in the future.

TIP:

Many TMS vendors and consulting partners are already thinking about data lakes! For example – Actualize has developed an API-based TMS-to-PowerBI Integration tool that: connects with your source systems to retrieve data via API in the MS ecosystem and automatically construct data schema, allowing functional teams to build dashboard reporting in PowerBI or Excel and leverage MS Copilot to identify AI use-cases – all of which can contribute to your enterprise data lake.

3 Construct Data Schema

While functional teams work on building dashboards and identifying use-cases within their analytics environment, the technical teams can work with system experts to create a data schema across all systems. A data schema build typically involves:

- Determining common keys and elements that join (map) data points between different systems
- Defining consistent naming conventions for similar fields found across systems

The output of this effort should be detailed specifications that will be referenced throughout the data lake build as well as for post-implementation refinements.

4 Consolidate the Data from Your Systems

Once all data has been validated, your MVP has been blueprinted, and data schema has been defined – it's time to build your enterprise data lake! Here are some things to consider:

- Ensure that your organization has sufficient technical and functional resources. If competency is lacking, plan to hire experts or consultants to assist.
- Begin leveraging the data lake for automated reporting, dashboards and potential ML/AI use-cases
- Prioritize use of API connectivity / endpoints to ensure you are capturing and updating all your data lake information in real time

5 Establish Data Governance

From beginning to end of your data lake implementation, governance should be present. Governance defines and enforces data policies to ensure quality, integrity, security, and compliance. Generally, the common roles within a data governance hierarchy include:

- Data Governance Lead - like a Chief Data Officer (CDO) - who sets the strategies, policies, and actions around the data consolidation initiative
- Data Stewards, who are responsible for managing data definitions and quality within specific systems where they are expert users – acting as the system specific subject matter experts who advise when new data requirements arise
- Data Custodians who handle the technical infrastructure and security – ensuring that data can be transmitted effectively and securely from source systems to the data lake
- Data users who utilize the data while adhering to the data governance policies established by the CDO

These roles interact within established **controls** that support data governance and include:

- Policies
- Processes
- Software solutions that manage and protect data
- Permission parameters that define who have access to which data, the actions they are permitted to take, and under what circumstances they can act

Examples of controls include:

- **Data quality standards** defining who can enter core data, how it should be entered, specific fields that should be populated, character limitations that apply, and formats that should be used
- **Permission parameters** that ensure users only have access to balance information and related data update actions they require to forecast cash positions relevant to the entities or regions they manage

Treasury ML/AI Use Cases Leveraging Your Data Lake

Once your enterprise data lake is live, you can use it to streamline ML/AI outputs that will introduce tremendous operational efficiency.

Artificial Intelligent (AI) is loosely defined as tools or systems that can mimic human behavior while Machine Learning (ML) is a subset of AI that uses algorithms that enables systems to learn from data.

Treasury can leverage information from the data lake using custom-tailored Machine Learning (ML) models that can, for example:

- Read historic actuals and expected transactions - while identifying seasonality and identifying variances - to build a 'living' forecast that self-improves over time. This forecast can then be used as-is or shared with your TMS and other systems for further refinement via data lake transfer.
- Analyze historical payments and identify those which fall outside the percentage norm, assisting in reduction of anomalies. Example: Payment to a new counterparty (given defined parameter thresholds) can be flagged for review, thus reducing the potential of funds being released to a fraudulent entity.
- Streamline other functional and analytical workflows that will save your team time!

And Artificial Intelligence (AI) can assist treasury teams with use-cases, including:

- Core data monitoring, maintenance and enrichment across systems for automated governance compliance
- Provide root cause analysis and remediation for payment rejections while learning how to prevent future occurrences. Example: Train AI on payment scenarios utilizing up-to-date specifications to remove friction due to missing or inaccurate beneficiary data required for certain payment scenarios *(e.g. EUR / IBAN / Charges Mode requirements on SEPA payments)*
- Monitor working capital management (WCM) metrics to make suggestions that accelerate collections, cost effectively prolong distributions, and utilize idle cash to maximize returns
- Assist with bank rationalization to minimize fees and risk exposure

The potential ML/AI value add for Treasury (and beyond!) - made possible with a data lake configuration, guided by a thoughtful data strategy - cannot be ignored. Market trends – as reported by Global Market Insights - suggest that large enterprises comprise 75% of the data lake customer base, highlighting how critical such implementation is for optimization at scale.

As remaining competitive is crucial for large enterprises and small-medium businesses alike, adoption of data lake technology will surely increase – lending to greater automation of tasks and analysis for critical teams like treasury.

If you're interested in learning more about data lakes, market trends, and best practices for your treasury team - check out our free resources available at Actualize Consulting.