AUTOMATED DATA-DRIVEN KPIS TRANSFORMING A MAJOR ENTERPRISE

All businesses depend on accurate financial, administrative, and operational Key Performance Indicators to inform decision-making and to monitor performance. The bigger the business, the tougher it is to integrate KPIs into systems and processes to proactively manage results. The business challenge is to ensure KPIs continuously monitor and measure performance - not just in retrospect at review time. This case study focuses on the experiences of a resources firm that recently engaged RoZetta to establish effective management of its array of KPIs and to instill greater confidence in reporting.

1. THE CHALLENGE

The client wanted to deliver consistent, accurate, and timely KPI performance reporting while ensuring security, auditability and privacy. The client had a fragmented information infrastructure - it managed KPI reporting with extracts from data in its Enterprise Data Warehouse and administration systems, augmented with manually transcribed data from Sharepoint. It used Excel to manipulate the data and produce the reporting.

The key requirement of the solution was to manage the collection of data from source systems and to remove any need for manual manipulation. The client expected the new system, to cascade KPIs through the organizational structure, including business units, management levels, and reporting lines.

Delegations also needed incorporation to ensure action in case of any variation in performance.
With continuous data collection, KPIs would measure progress and provide automated "red flags" where performance deviated from expectation.

The new system would ensure equity, clarity, and transparency on each KPI.

2. USER REQUIREMENTS

Teams responsible for managing KPI governance frequently found crucial information was inconsistent, inaccurate, or missing, resulting in a loss of confidence in the integrity of KPI reporting.

The business needed a user-friendly, self-service KPI configuration and management tool, allowing users and governance teams to create and manage KPIs across different business units.

The solution had to publish KPIs to the broader business and support the governance team to ensure a coherent and orchestrated approach to transparency.

Reporting was required at every level up to and including the highest management. Also needed was the ability to set permission levels and audit access to ensure the security of confidential underlying data.

3. SOLUTION ATTRIBUTES

Several business needs had to be addressed:

- Allow the business to specify KPI metric rules, i.e., hierarchies, inheritance and rollup, which change over time.
- Use anomaly detection to identify any variation in expected performance.
- Enable KPI dashboards and reports to access metrics via a consistent and secure API.
- Develop an administration interface to input and implement KPI changes.
- Deliver a data architecture optimized for time-series queries and analysis.

4. ROZETTA SOLUTION

To meet these challenges RoZetta built an integrated KPI manager with an interactive interface incorporating simple yet effective connectivity to reporting visualization tools such as Tableau via a secure, authenticated API.

The project engaged a cross-organizational, geographically distributed project team, using an Agile approach to solution delivery. Close engagement with this diverse working group was a critical development component.

The solution allowed configuration in YAML (a data serialization standard valued for flexibility and seamless integration with all programming languages) and hosted in an Amazon Web Services cloud environment.

It accommodated active redundancy, scalability, update management, and accessibility with required privacy, compliance, and confidentiality levels.

5. INCORPORATING ANOMALY DETECTION

The enterprise's Data Science Team manages the KPI system, ensuring outcomes inconsistent with expectations are detected and reported on discovery, not on review.

The primary process used is anomaly detection.

This combines multiple data science methodologies such as classification, regression, and clustering.

The goal is for the acceptable tolerance of each KPI to be determined scientifically and then monitored. Any value outside this tolerance is considered an outlier and raised to the delegated resource for investigation - ensuring the system moved to proactive identification of variations in performance.

6. CLIENT OUTCOMES

The KPI system made it easier for employees to access KPI metrics and underlying performance data. It reduced manual intervention, replaced complex data extraction and transformation processes, and minimized the risk of errors in reporting.

Management and governance teams can now manage and monitor KPI activity with a clear view of ownership and accountability. The solution provides full traceability and alerting functionality, ensuring anomalous trends are detected early.

It has improved business efficiency, reliability, and operational and financial decision-making.

RoZetta's data science knowledge and more than 20 years of experience in cloud and data technologies enabled the design and delivery of this transformative solution.

Contact us today to learn how RoZetta Technology can enhance your KPI systems.