Pharma Supply Chain Quality Analytics

Enhance pharma quality and resilience with AI-powered analysis

tellius

> 🔍 **What is driving high cycle times of product X ?** 🎤
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> 🔍 What are the carrying costs of product X compared to product Y?
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> 🔍 Where are the bottlenecks occurring across my supply chain?
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> 🔍 Which suppliers are our top 10 most on-time vs most delayed?

Life Science Supply Chain Challenges Today

Maintaining supply chain quality in the pharmaceutical industry is difficult due to stringent regulatory compliance and quality standards (e.g., GMO, GLP, etc.), manufacturing and supply chain complexity, data integration and interoperability considerations, and time sensitivities, just to name a few.

Supply chain and quality teams have their work cut out for them, but AI-powered analytics can help.

AI-Powered Analytics for Supply Chain & Manufacturing Quality Teams

Tellius helps pharma QA and supply chain teams make better-informed demand forecasting, quality control, inventory, and operational decisions. The platform works by connecting disparate data sources—manufacturing, supplier, inventory, logistics, sales, regulatory, and many more sources—and upon this unified base, offering:

- A Google-like natural language search interface and AutoViz layer for ad hoc exploration
- Intuitive point-and-click live dashboarding, reporting, and embedded analytics
- Robust automated insights to isolate key drivers, root causes, and anomalies
- Accessible advanced analytics such as AutoML

This approach allows supply chain, demand planning, and quality control teams to self-serve ad hoc analysis to better inform decision-making and become truly data-driven.

Why Tellius for Pharmaceutical Manufacturing Quality

Tellius is an AI-powered analytics platform that enables life science organizations to answer ad hoc questions and get faster insights from multiple sources easier, using ML-automation.

- 💡 Spot insights into key drivers of quality issues to implement more effective change controls, faster.

- 🔍 Explore and iterate analysis of manufacturing quality issues rapidly, without relying on advanced analytics teams.

- 🗄️ Provide holistic views across all manufacturing data sources to make smarter data-driven manufacturing management decisions.

- 🧠 Catch quality issues as they emerge and forecast future risks through ML/AI based pattern and anomaly detection.

PHARMA SUPPLY CHAIN ANALYTICS USE CASES

Delay / Variation Root Cause Analysis

Identify the root cause of issues impacting high cycle times by applying Tellius Automated Insights to parse every variable and combination of variables for key drivers across all your connected datasets. Once identified, implement more effective change controls, monitor progress in live dashboards and via real-time alerts, and ultimately improve capacity planning to mitigate manufacturing risk and streamline operations.

Quality Forecasting

Quality control issues put your business at risk. With Tellius, predict quality control issues and delays through point-and-click ML modeling to solve issues before they become problems. Make smarter data-driven manufacturing management decisions with holistic views across disparate data sources.

Enhanced Inventory Management

With Tellius, supply chain analysts can leverage advanced AI-powered analytics tools to improve inventory management. Point-and-click predictive analytics enables every analyst to apple regression, classification, and clustering to improve inventory analysis. Classification helps to identify products based on sales, volume, and demand variability to help focus resources on high-impact drugs. Regression analysis can be used for improved market access and lead time analysis.

Demand Forecasting & Variation Reduction

Tellius improves demand forecasting by providing a complete picture of all of your data, a lightning fast analytics engine for quick answers, and intuitive tools to simplify analysis. No matter where your data lives, Tellius has a way to connect to your data and provide a holistic view. Supply chain analysts can better understand how marketing, market access, and competitive dynamics impact demand. Tellius can further analyze variation into ordering patterns and supply utilization through ML/AI-based automated trend spotting and clustering.

Supplier Performance Analysis

Tellius provides a wide range of tools to help improve collaboration with life science suppliers. Supply chain analysts leverage Tellius's Vizpads to track supplier performance based on on-time delivery, quality, lead times, and responsiveness. With automated root cause analysis, every supply chain analyst can identify causes of disruptions or quality problems. Supply chain and quality analysts can leverage the ad hoc analysis capabilities of Tellius in supplier meetings to quickly identify potential issues and plan efforts to reduce overstocking and stockouts. Historical analysis can also be useful to assess the holistic relationship between supplier performance metrics and their impact on overall supply chain efficiency to select and manage suppliers effectively.

Success Story

The QA team at a top 20 pharmaceutical firm struggled to identify product delay root causes due to technology (i.e., inaccessible quality/audit data stored in legacy DBs with no reporting capability) and skill gaps (i.e., QA specialists manually analyzing raw data in Excel). QA delays meant high regulatory risk.

The QA team now uses Tellius for easily accessible, up-to-date metric tracking, dashboarding, natural language search for ad hoc investigative work, and automated insights to diagnose what drove quality process failures and segment identification of processes most prone to failure. Proactively attacking problems, the firm has reduced its aggregate quality process cycle time by 30%, reacting more quickly to quality issues while also being able to granularly pinpoint down to the plant level where issues arise.

30%
reduction in **machine downtime**, via predictive maintenance

10%
reduction in production losses by identifying root causes of part shortages

10X
faster supply chain analytics vs manual approaches