Final Results Stakeholder Report

1. MetricA Over Time by Category

What the plot shows:
This line chart tracks MetricA values across dates, split by business category (Y and Z).

Key insight for stakeholders:
Category Y shows accelerated gains, while Category Z remains steady, pinpointing which business lines drive improvements.

Assumptions or limitations:
MetricA is assumed to reliably represent business value. Limited data points reduce trend certainty.

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2. Return by Scenario

What the plot shows:
Bar chart comparing returns across baseline, alternate imputation, and alternate outlier rule scenarios.

Key insight:
Handling outliers with a "3sigma" rule boosts returns notably, emphasizing the impact of data cleaning choices.

Assumptions or limitations:
Scenarios use comparable time windows; changes reflect only the specified assumption.

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3. Risk–Return by Scenario

What the plot shows:
Scatter plot displays relationship between risk (volatility) and return for all scenarios.

Key insight:
"alt_outlier" offers highest return and risk; baseline scenario achieves balanced risk-return performance.

Assumptions or limitations:
Risk calculated consistently across scenarios; potential confounding by other untracked factors.

Assumptions & Risks

- Assumptions:
  - Consistent scenario definitions, data pre-processing, and metric calculations
  - Categories (Y, Z) are accurately labeled and comparable
- Risks:
  - Sensitivity to outlier and imputation rules may mask hidden instability
  - Small sample size could limit generalizability

Sensitivity Analysis

Scenario	MetricA	% Change vs Baseline
baseline	75.04	0%
alt_impute	74.46	-0.8%
alt_outlier	84.24	+12.3%

Changing outlier treatment increases MetricA by over 12%, while switching imputation method slightly decreases performance.

Decision Implications

- Stakeholders should revisit imputation and outlier strategies regularly, as these can cause meaningful shifts in financial outcomes and risk.
- Outlier handling can raise performance, but may introduce greater volatility.
- Track performance metrics by business category for targeted interventions and ongoing model review.