# BROAD ANALYTICS ASSOCIATION DATATHON

Mark Endicott, Justin Tran, Joseph Burke, Marshall Hudson
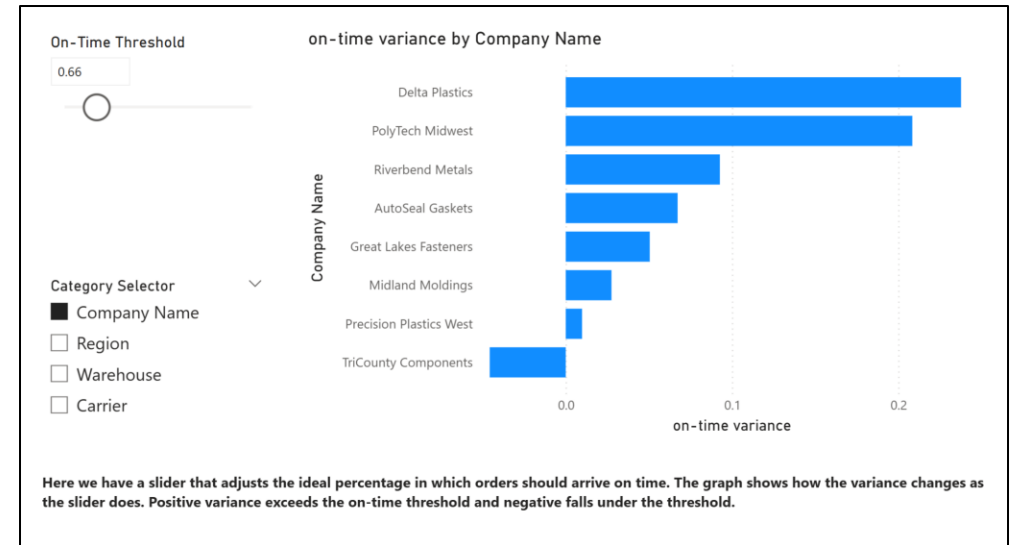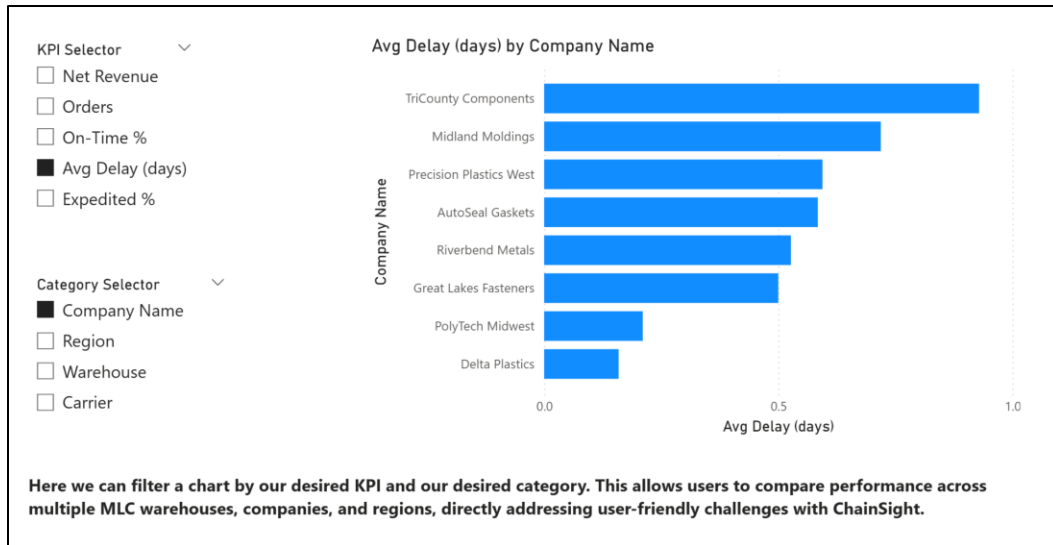
# PURPOSE OF ANALYSIS

- For Connected Midland initiative to thrive, ChainSight must also thrive

- Multiple challenges have emerged upon launching ChainSight

    - Non-user-friendly systems

    - Weak data validation
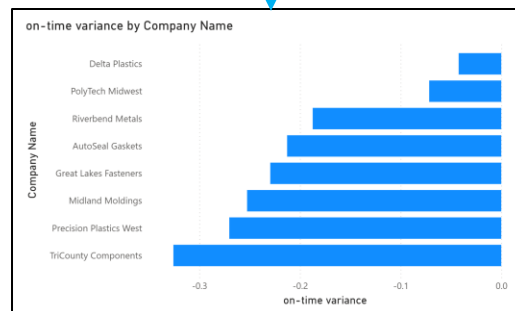
    - Poor data quality
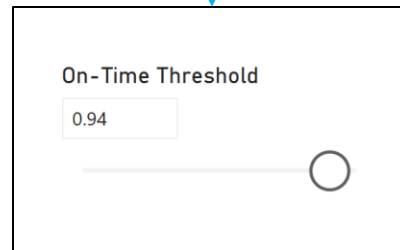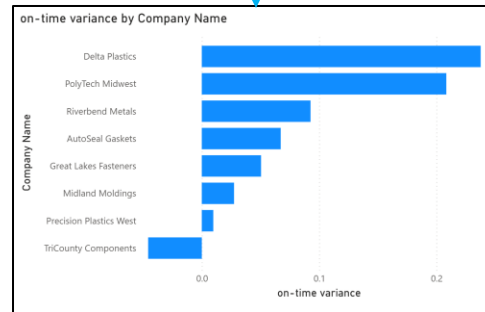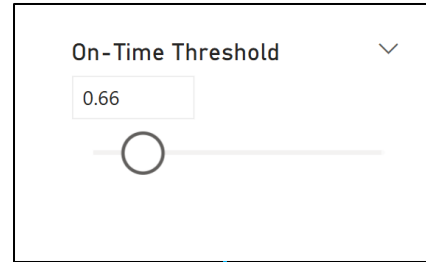
SUPPLY CHAIN

# FIRST RECOMMENDATION

- Make ChainSight systems more usable by including more interactable dashboards.

- More slicers, selectors, and sliders

# REASON

- User-friendly interaction

- Facilitates more user exploration

- Quick comparison across diverse KPI

- Instant reports on variable relationships

- Usable systems are more likely to be adopted

- Less work for Rahul...

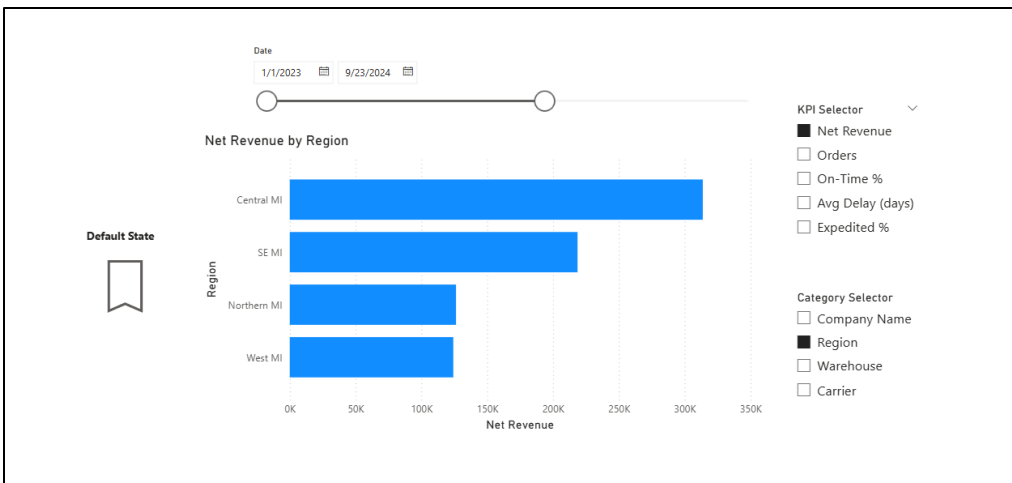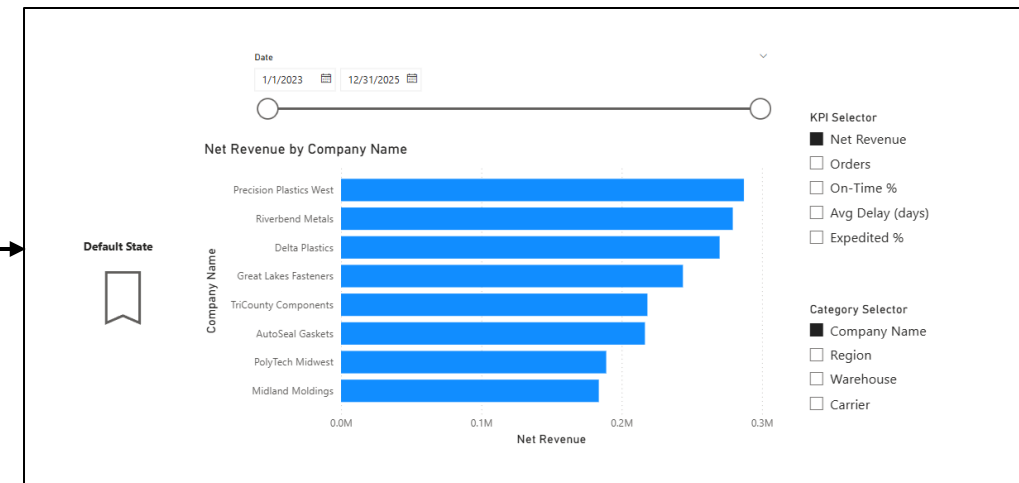# SECOND RECOMMENDATION

- Bookmark buttons for reverting to the default filter state.
- Easily export their changes

# REASON

- Simplifying the filtering system
- Quick reset after exporting changes
- Better digestibility
- Faster iterations



**EXPORT**

# THIRD RECOMMENDATION

- Invent rubrics for companies to input data. Create standard product ID format.

- Set validation criteria for each field in rubric, decreasing amount of invalid data.

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| | order_id | order_date | company_id | company_name | sku | region |
| | 200000 | 3/21/2025 | 1012 | AutoSeal Gaskets | SKU0042 | Central MI |

# REASON

- Standardized data entry system expedites data entry process

- Validation, incorrect data format becomes impossible

- Less data cleaning

- Less work for Rahul...

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| | order_id | order_date | company_id | company_name | sku | region |
| | 200000 | 12 | | 1012 | AutoSeal Gaskets | SKU0042 | Central MI |

Incorrect Format ☓

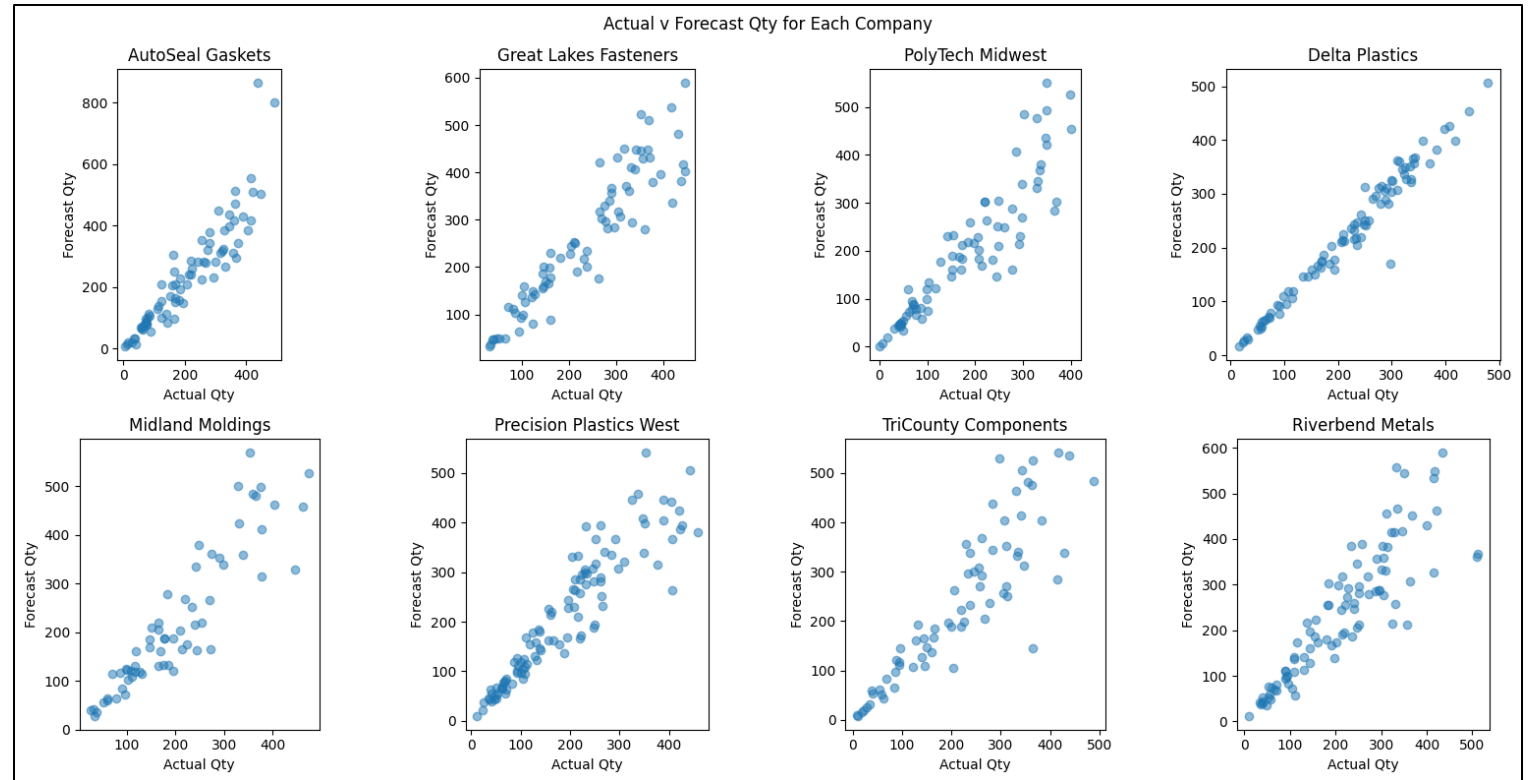❌ Please adjust to a valid date (format MM/DD/YYYY)

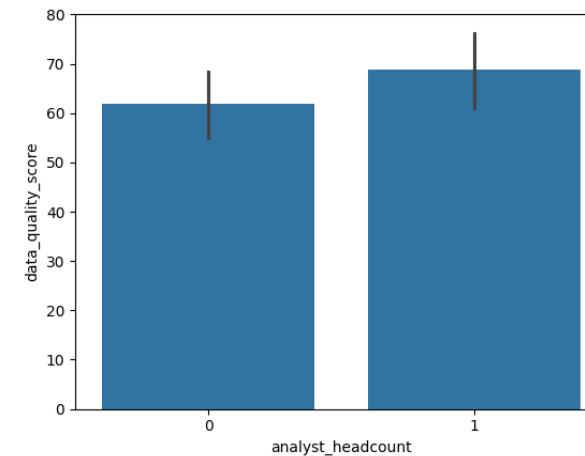Retry   Cancel   Help

# FOURTH RECOMMENDATION

- Use data as soon as possible

- Upload data weekly

- Hire a company analyst

- Retrieve higher quality data

# REASON

| Company Name | Mean Absolute Percent Error | Adoption Stage | Data Quality Score | Data Freshness Days |
|---|---|---|---|---|
| Delta Plastics | 6.569% | High | 78.3% | 3.787 |
| Great Lakes Fasteners | 20.232% | Medium | 67.5% | 4.684 |
| Precision Plastics West | 20.652% | Low | 66.9% | 4.338 |
| Precision Plastics West | 20.684% | Low | 57.7% | 4.383 |
| Midland Moldings | 21.820% | Low | 72.2% | 4.162 |
| AutoSeal Gaskets | 22.166% | Medium | 81.9% | 4.408 |
| Riverbend Metals | 22.604% | Medium | 55.6% | 3.800 |
| TriCounty Components | 22.679% | Low | 57.9% | 4.020 |

- Mean absolute percent error is the accuracy of the forecast

- High adoption and low data freshness has correlation to the percent error being lower

- Companies with data analyst have higher data quality scores which is important

# FINAL RECOMMENDATION

Burke's rec

# THANK YOU

Team: Marshall Hudson

Members: Mark Endicott, Justin Tran, Joseph Burke, Marshall Hudson

GitHub: https://github.com/Burkey3072/MSUDatathon