Procurement KPIs Analysis Report / 28.Apr, Elevate Labs Task 5

Nazim Atakan Erdogan

In this analysis on procurement KPIs at hypothetical businesses will be demonstrated, and the details of interrelating factors such as suppliers, order date, delivery date, item category, defected units, quantity; unit and negotiated price will be discussed. The relationships between features will be investigated and summarized.

Data Analysis:
- Data Cleaning and preparation using of data for analysis
- Showcase of statistical values and data types
- The null values were cleared and data made ready for EDA processes.
- Order date and delivery date, order status, unit price were grouped and were shown with different kinds of plots and charts, seaborn and matplotlib was utilized.
- Looked for outliers in data and eliminated them with demonstration of boxplots
- Matched categorical data with numerical data using violin plots
-

Conclusions & Insights:

From the correlation matrices and other charts, graphs and plots it can be seen:,

- Unit price differ from 10 to 150
- Suppliers are nearly evenly distributed
- Delta logistics has the largest value of defective units
- Alpha has the least value of defective units
- Epsilon has the highest compliance rate,
- Unit price and order quantity are negatively correlated
- Negotiated price and unit prices are nearly correlated 1.0
- Negotiated price has a negative correlation to defective units
- Compliance has negative correlation to defective units
- Unit price and negotiated price are positively correlated to compliance
- Quantity and order status are negatively correlated with compliance
- Order status is positively correlated to unit price
- Accuracy:
- Accuracy on predicted model using linear regression is nearly 0.98 with feature of Unit Prices