Rationale for the Inclusions

**Power BI challenge**

**Filters**

Added filters for Supply Chain Type and Quarter – This was done because different supply chain types (SCT) may be run by different teams and may have different business rules. This could mean that different SCTs are expected to have different mean lead times, for example, and so grouping them all together could bias our analysis. Regarding the quarter filter, this may be handy because of possible effects of seasonality, such as higher demand during specific periods of the year. This requires us to be able to analyze individual quarters and their metrics.

**Destination City View**

Added average lead time for cities, Regarding the “destination city” visual, it is important to not only know the biggest offenders in terms of maximum lead time, but also the biggest offenders on average, so the mean was included.

Added coefficient of variation of the Lead Time – A measure of variability in the lead time was also included in the form of the coefficient of variation. This is important because high variability tends to lead to higher prediction error, which is worst for both the company and the customer. It is better to use the coefficient of variation instead of the standard deviation, for example, because the coefficient of variation is normalized by the mean, and as such can be analyzed as a standalone value unlike the standard deviation.

Added filter to select cities with more than X total deliveries – There are multiple cities with very few deliveries and these cities may have very high lead times as a result of this. Consequently, they may appear on top of the table view but are not representative of the overall operations. The report as it was sent, removes any cities with less than 25 deliveries, but this value can be changed based on users requirements.

**Order Information Card**

Added Total Shipment Costs, Average Cost per Order, Number of Orders per Day, and Total Number of Destinations – Total shipment costs reflects one of the key costs of the operation and is something that must be tracked, with possible goals being created to reduce such costs for specific markets. This metric tracks the same costs as those associated to the total shipment costs but presents a view related to each single order, on average. Number of orders per day and total number of destinations, are both KPI that can be used to assess the growth of the operations, and multiple goals could be set in this sense, for example: “We want to do at least 1000 deliveries per day to Mexico by 2025, and at this time, we want to reach at least 500 different cities in a year.