Report 1

Creation Date: Wednesday, 5 November 2025, 06:34:03
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SAS Viya Report Overview

Report Title Sales, Gross Margin and Customer Satisfaction Analysis.
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Date: 2025/11/03

Overview

This report on SAS Viya gives an in-depth review of sales, gross margin, and customer satisfaction statistics of facilities worldwide. It has data preparation, visualisation, and interactive dashboards to help managers make decisions.

Every page of this report is associated with a particular task of analysis, as it is listed below.

Task Summaries
Task 1 - Create Data Items

The task is concerned with SAS Viya data preparation.

Task 1.1: Calculated Gross Margin and Average Gross Margin of computed items.

Task 1.2 and 1.3: Drew up hierarchical models Product Hierarchy (Brand - Line - Make - Style) and Facility Geo-Hierarchy (Continent - Country - Region - city).

Task 1.4: Created a Drillable Bar Chart that represents the visualization of the Average Gross Margin by hierarchy, which is going to be explored dynamically with the help of drill down and highlighting.

Task 2 - Gross Margin and Sales summary Visualizations.

created numerous visualizations to bring to the table the profitability and sales performance.

The table presents a crosstab of the Product Sales and Gross Margin by country and continent, in a detailed way (2.1).

2.2 : Sorted Bar Chart at the country level of the highest and the lowest average gross margins.

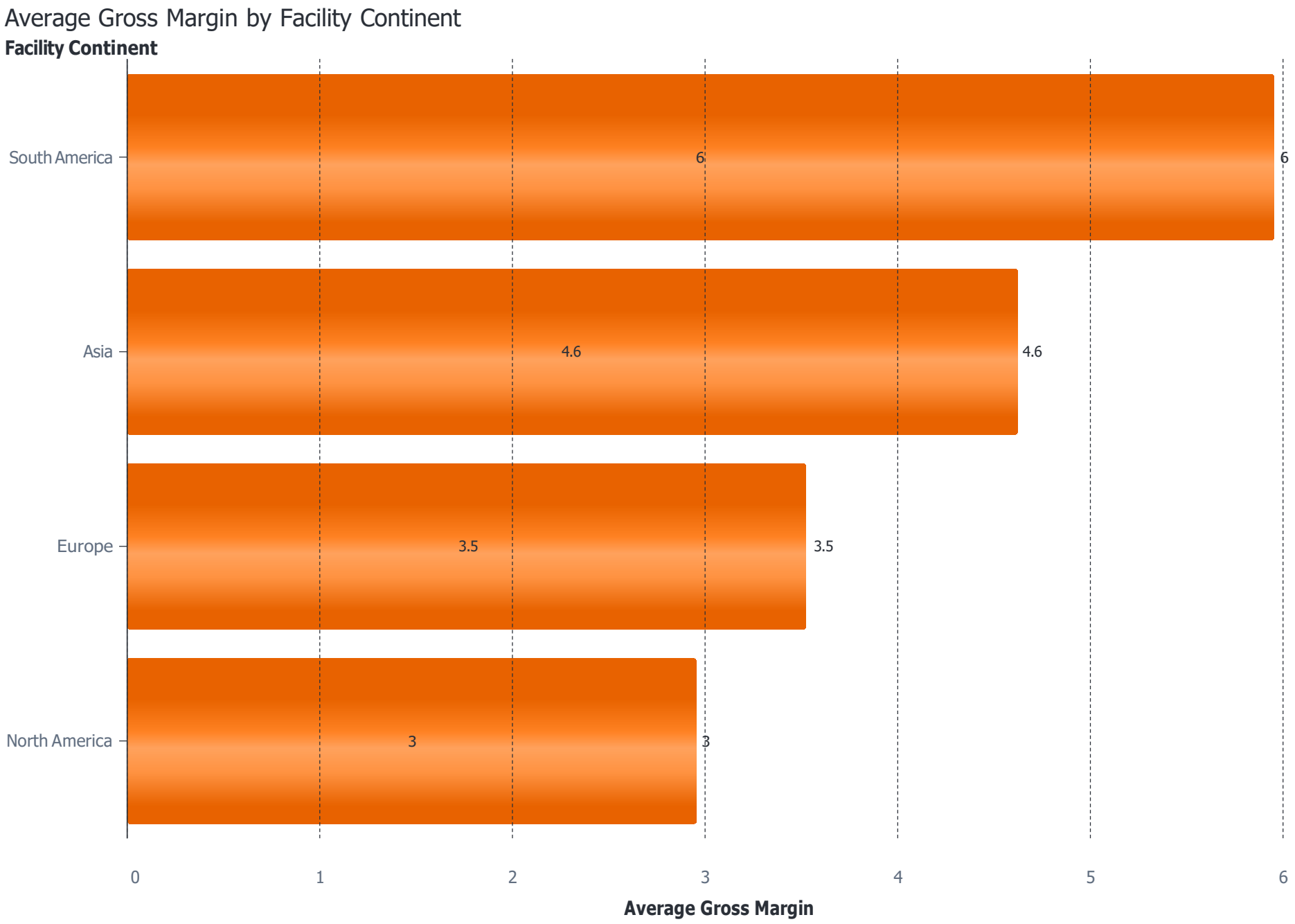
2.3 : Line Chart that shows how Sales of Products have increased or decreased over the years in the various continents.

2.4 : Trellis Chart of the Total Gross Margin by Product Brands and Continents.

Interactive Sales and Satisfaction Exploration Task 3.

Developed a dashboard that can be interacted with to find out about sales and customer satisfaction all over the world.

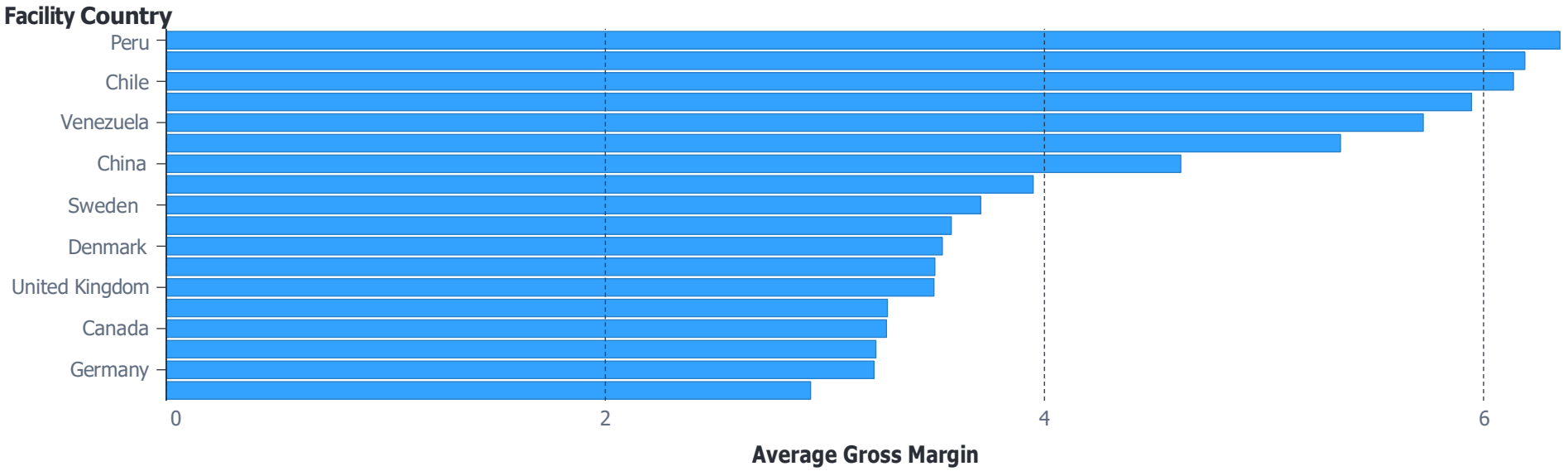
1.1.Average Gross Margin by Facility Continent



2.Country with Highest/Lowest Average Gross Margin

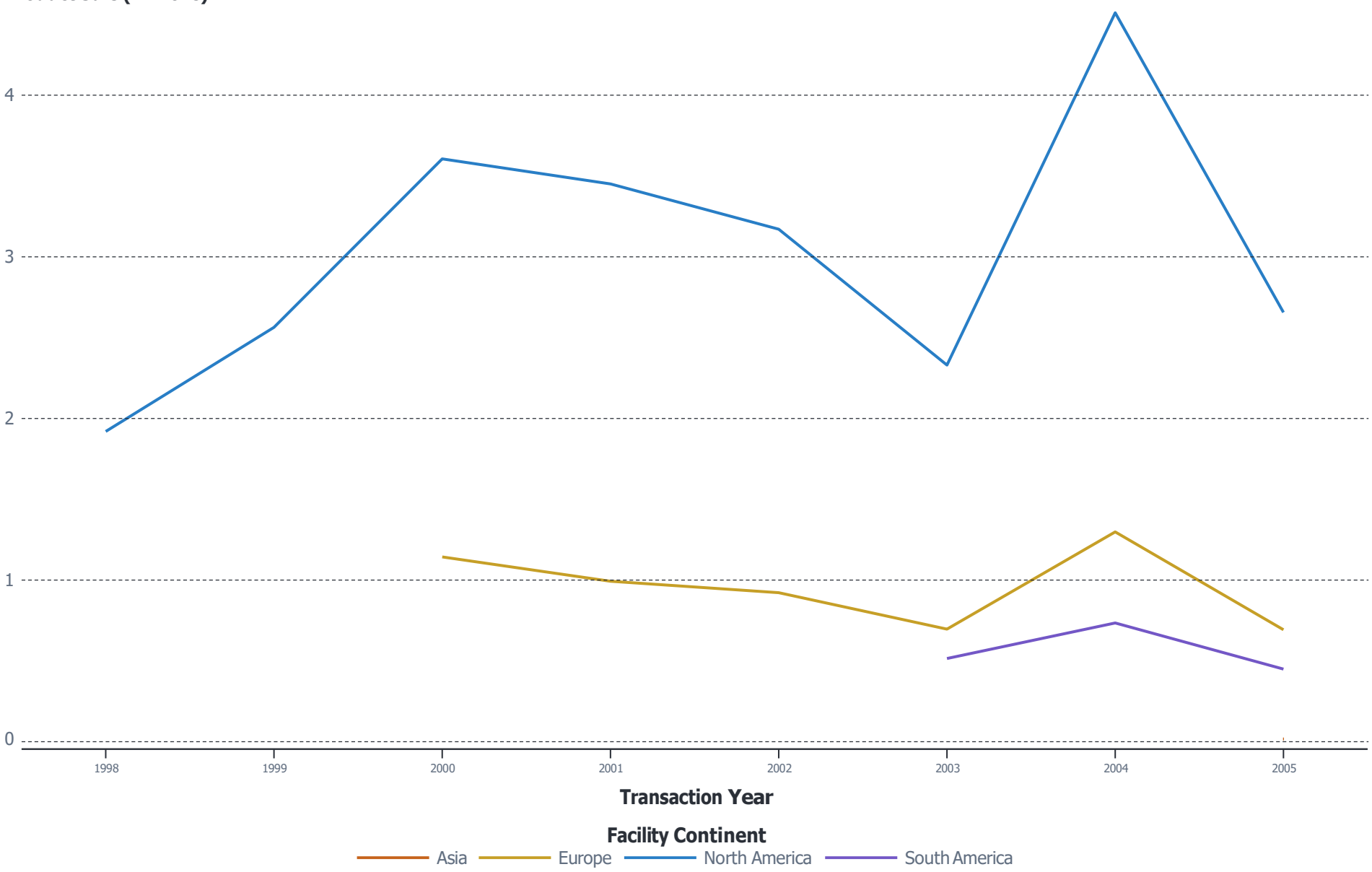
Facility Continent	Facility Country	Gross Margin	Product Sale
North America	United States	3,573,662.29	22832243
	Canada	152,225.58	969520
	Mexico	66,993.46	406205
Europe	Spain	248,249.25	1560412
	United Kingdom	239,321.36	1501642
	Germany	109,878.64	689530
	Sweden	98,597.90	607665
	Italy	72,336.90	445738
	Norway	70,504.22	409697
	France	45,132.89	296303
	Denmark	37,455.65	234614

Average Gross Margin by Facility Country



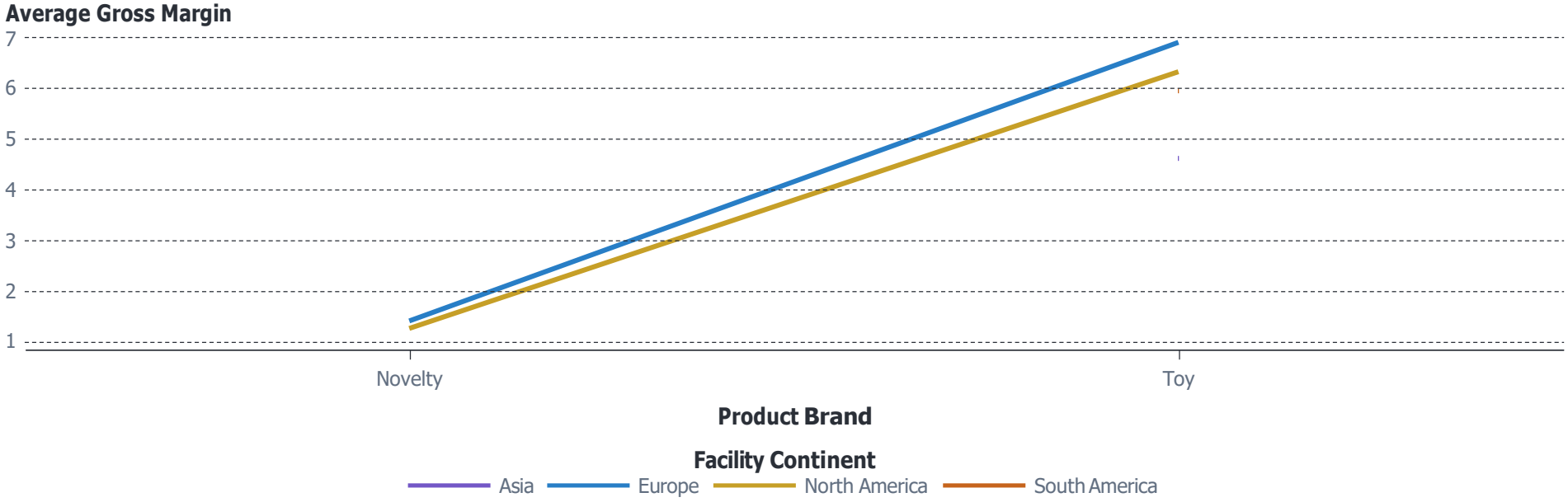
Product Sales Over Time Across Continents

Product Sale by Transaction Year grouped by Facility Continent



2.4Total Gross Margin Trends Across Brands & Continents

Average Gross Margin by Product Brand grouped by Facility Continent

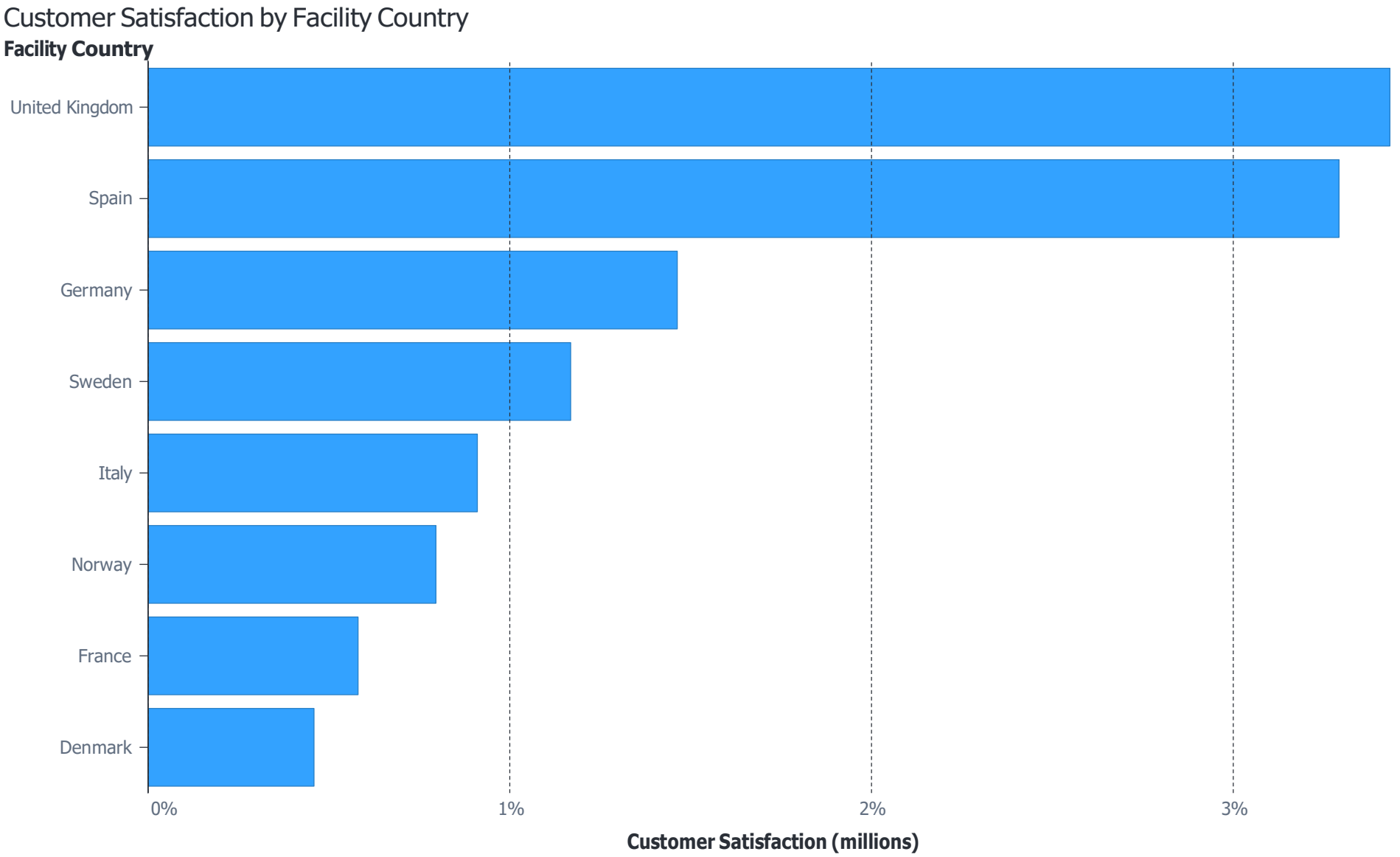


Facility Continent

Asia	Europe	North America	South America

4.1. Customer Satisfaction by Facility Country

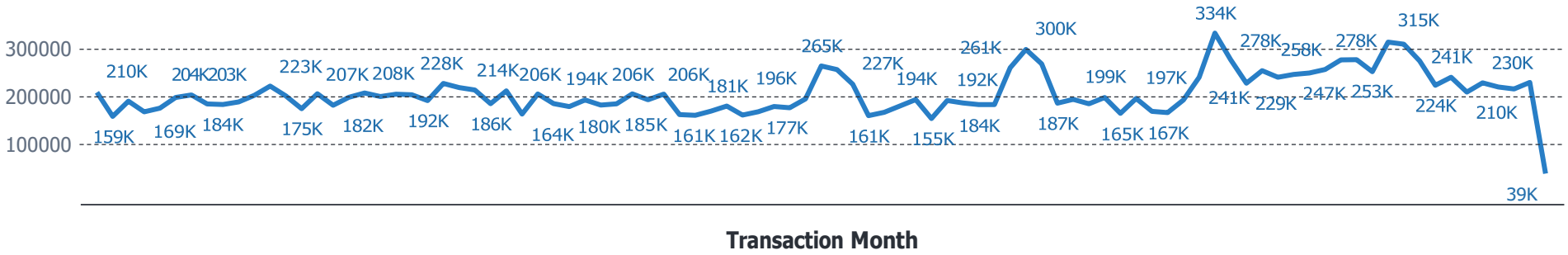
Asia	Europe	North America	South America



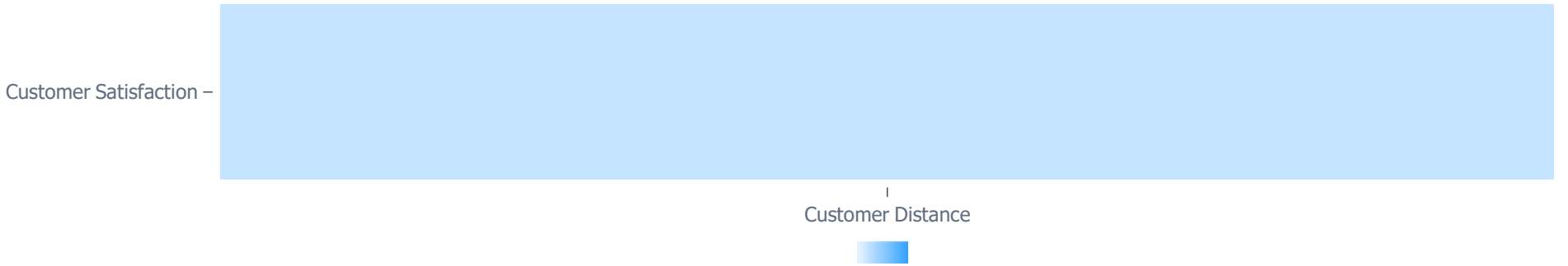
A1.1

4.2. Distribution of Customer Distance

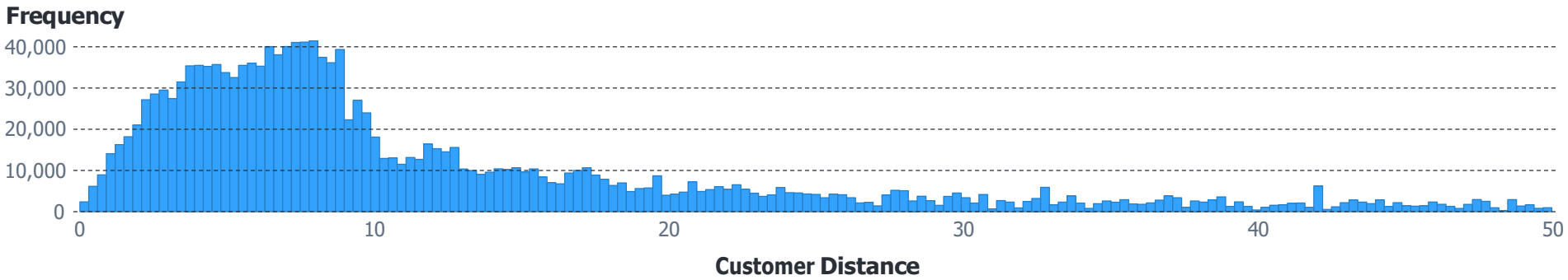
Customer Distance by Transaction Month



Correlation of Selected Measures

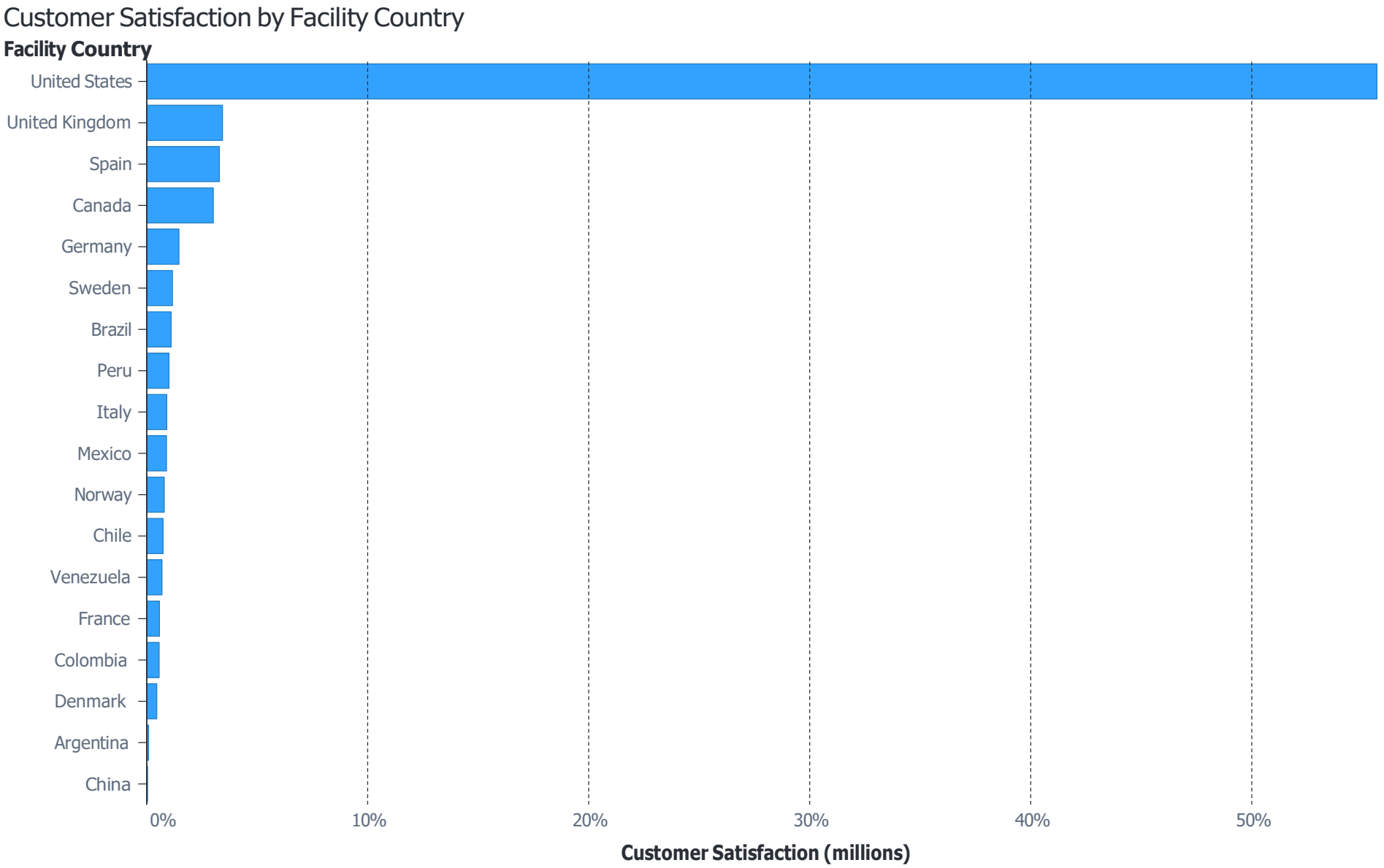


Frequency of Customer Distance



4.3 Interactive Filtering from Bar Chart

Asia	Europe	North America	South America

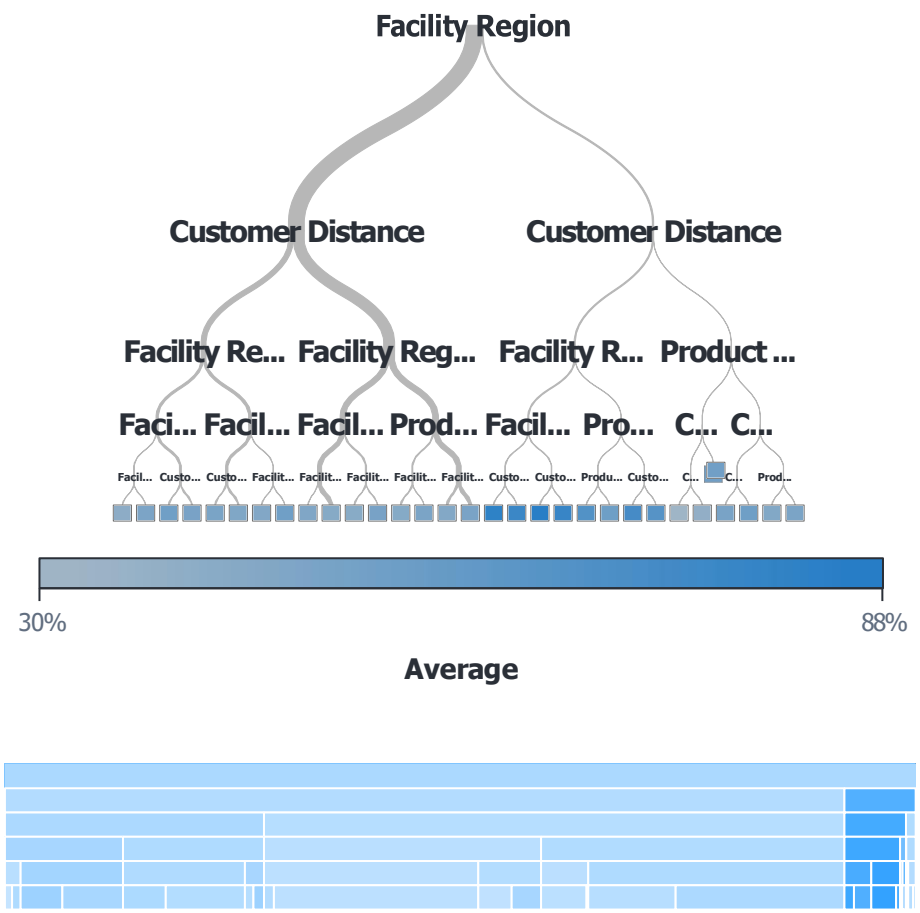


4.4 Analytics: Key Factors Impacting Satisfaction

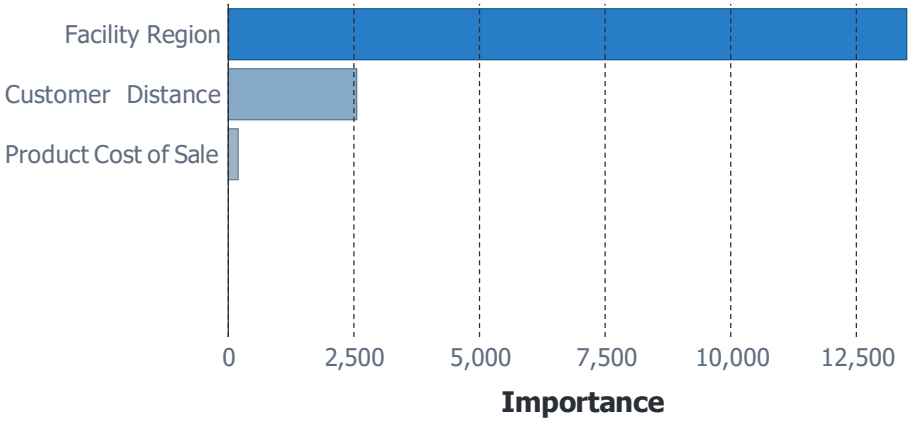
Decision Tree of Customer Satisfaction

Fit: **ASE 0.02** Observations: **1.6M of 1.6M**

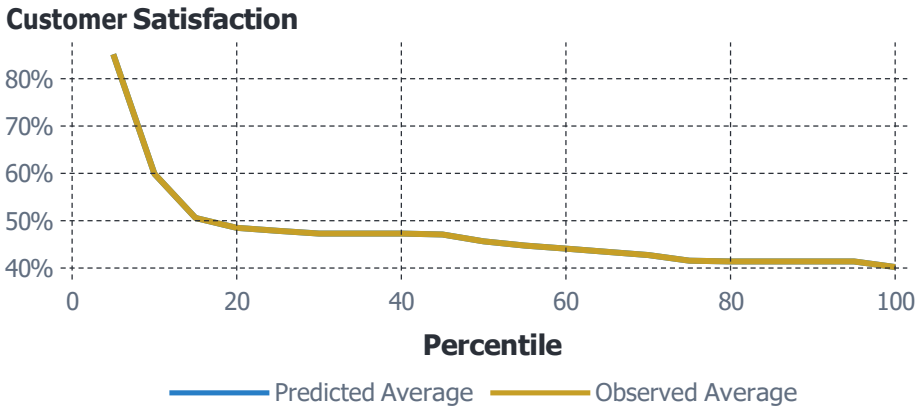
Tree



Variable Importance



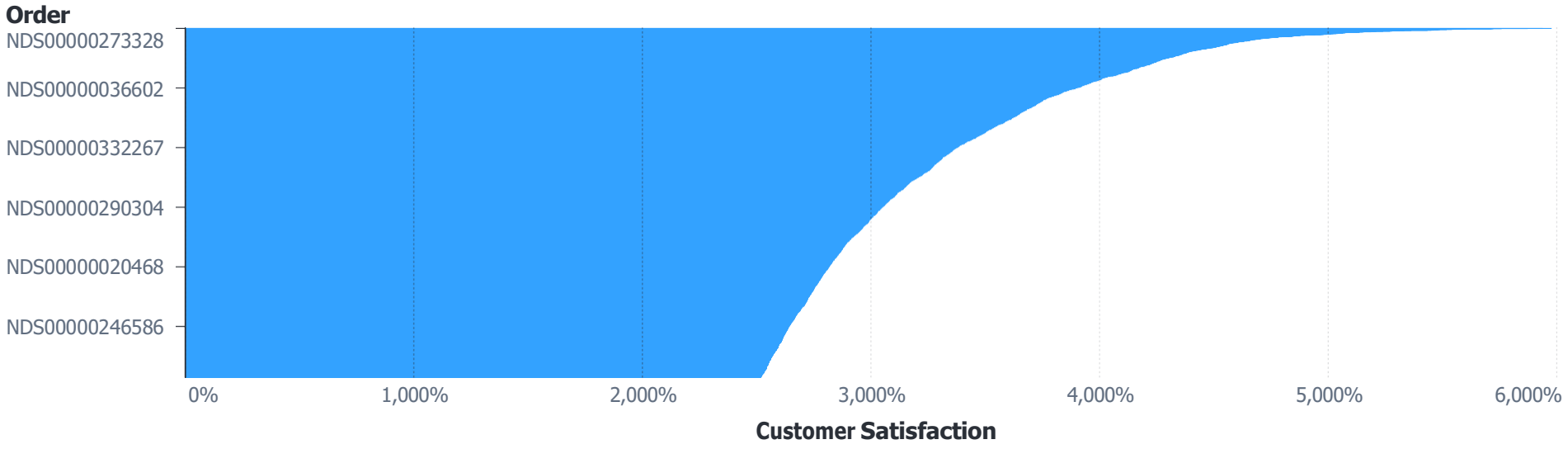
Assessment



Visualize Factor Effects

Customer Satisfaction by Distance Category

Customer Satisfaction by Order



a A2.1

3.1.compare the Product Sales from facilities across Continents, Countries, Regions, and Cities.

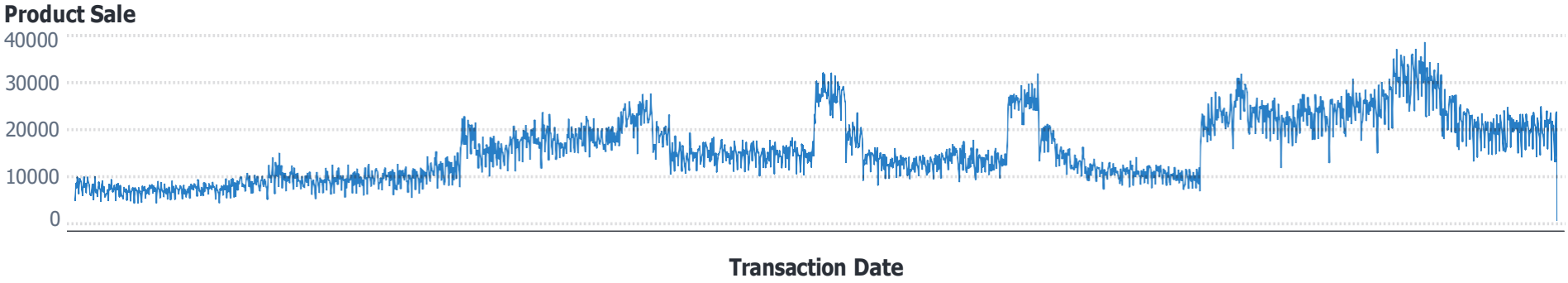
Product Sale by COuntry

a A3.1

Average Customer Satisfication by COuntry

a A3.2

Product Sale by Transaction Date



Appendix

A1.1 Customer Satisfaction by Facility Country

Filters: Facility Continent = 'Europe'

A2.1 Customer Satisfaction by Order

Warnings: Only 3,000 rows of the data appear.

A3.1 Product Sale by COuntry

Warnings: Some regions in the map have multiple classification values. Only the first value is displayed.

A3.2 Average Customer Satisfication by COuntry

Warnings: Some regions in the map have multiple classification values. Only the first value is displayed.