#### NORTHWIND TRADERS DASHBOARD

Total Revenue

Total Profit

**Total Sales** 

Total Customers Total Employees

**Total Orders** 

\$1.27M \$1.06M **51,317** 

18.40

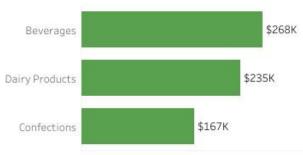
19.56

19.69

830



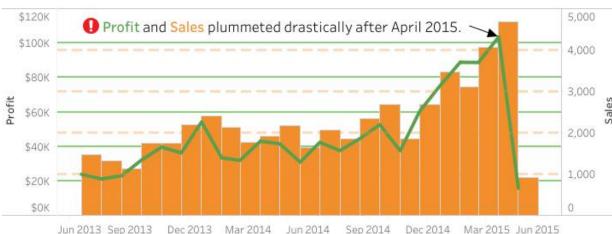




Top 3 Product Names



Profit and Sales Trends



Top 3 Customers by Revenue



Top 3 Customers by Sales



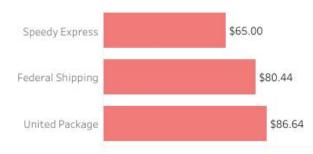
Order Shipping Status



Profit per City



#### Average Freight



Average Shipping Days

United Package

Speedy Express

Federal Shipping

### **Abstract**

- I assumed the role of a BI Developer for Northwind Traders.
  - ▶ Northwind Traders is a fictional gourmet food supplier.
- I built a top-level KPI dashboard for the executive team.
  - The dashboard provides insights into these key areas of the business:
    - > sales trends
    - product performance
    - key customers
    - shipping costs
- I used Excel and Tableau for this project.
  - ▶ I cleaned the tables and built a relational data model in Excel.
  - I exported the cleaned tables to Tableau to conduct my analysis.
- ▶ I have uploaded all the files for this project onto my <u>GitHub</u>.

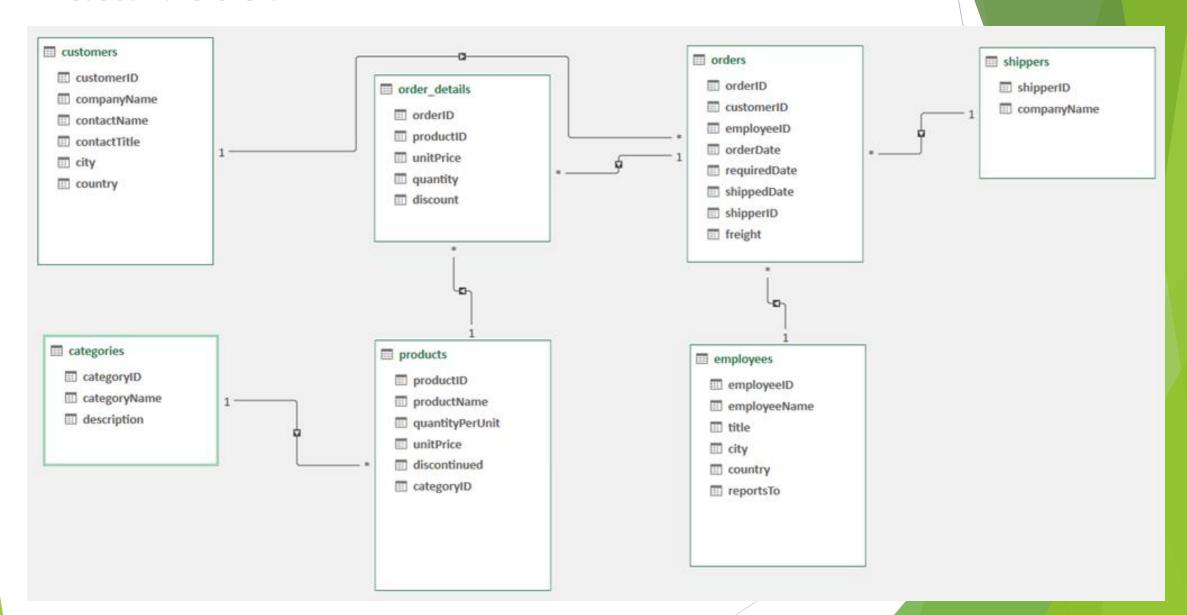
## **Data Cleaning Strategy**

- I am working with structured data.
  - ▶ The data consists of sales and order data.
  - Therefore, my data cleaning strategy was not very involved.
- ▶ I changed the currency metrics to currency data types.
- ▶ I made the following changes to the "products" table:
  - ▶ I changed the "1" values to "Yes" values in the "discontinued" column.
  - ▶ I changed the "0" values to "No" values in the "discontinued" column.
- ▶ I assumed that the product prices remained fixed when the orders were placed.
  - My analysis did not factor in any supply and demand factors that might have caused any price fluctuations.
- ▶ I assumed that orders that were delayed or not shipped had no shipping days.

### **Key Questions**

- Product Sales Analysis
  - ▶ What were the top 3 product categories and names in terms of revenue?
  - ► How have profit and sales changed over time?
  - Which areas of the world were the most profitable for the business?
- Customer Analysis
  - ▶ Who were the top 3 most valuable customers in terms of revenue and sales?
  - ► How many orders have been shipped, delayed, or not shipped?
- Shipping Analysis
  - ▶ Which shipper had the cheapest shipping cost on average?
  - Which shipper shipped out orders the earliest on average?

### Data Model



### **Product Sales Insights**

- ▶ These product categories drove the most revenue for the business:
  - Beverages
  - Dairy Products
  - Confections
- ▶ These product names drove the most revenue for the business:
  - Côte de Blaye
  - ► Thüringer Rostbratwurst
  - Raciette Courdavault
- Profit and Sales saw a steep decline from April 2015 to May 2015.
  - Profit fell from a maximum of \$104K in April to a minimum of \$16K in May. (a staggering 84.61% drop)
  - ▶ Sales fell from a maximum of 4,680 in April to a minimum of 921 in May. (a staggering 80.32% drop)
- Profits were heavily concentrated in European cities.
  - ▶ These European cities were driving the most profit:
    - ► Graz, Austria
    - ► London, UK
    - Cork, Ireland

### **Customer Insights**

- These were the most valuable customers for the business in terms of revenue and sales:
  - ► Horst Kloss
  - Roland Mendel
  - Jose Pavarotti
- Most orders were shipped to customers at or before the requested delivery date.
  - ▶ There were only a handful of orders that were either delayed or not shipped.

# **Shipping Insights**

- ▶ Speedy Express had the cheapest shipping cost of \$65.00 on average.
- United Package shipped out orders the earliest at 18.40 days on average.

#### Recommendations

- I recommend the following guidelines for recovering from the profit and sales losses:
  - ▶ Upsell on the top 3 product categories and names.
    - ▶ This will likely ensure that revenue and profit are maximized in the future.
  - Maintain great relationships with ALL customers, especially the top 3.
  - Maintain the high ratio of orders shipped to delayed and not shipped orders.
  - ▶ Hire more employees to meet the demands of customer orders.
    - ► This will likely minimize the number of orders that are delayed or not shipped.
  - ► Concentrate marketing campaigns in European cities.
    - ► This strategy will likely attract new customers because most of the profit came from these cities.