Northwind Traders

Hypothesis Test Results

By: Alex Husted

What is Northwind?

A Food Distributer.

Import and export specialty foods.

Serve regions around the world.

What is the goal of the model?

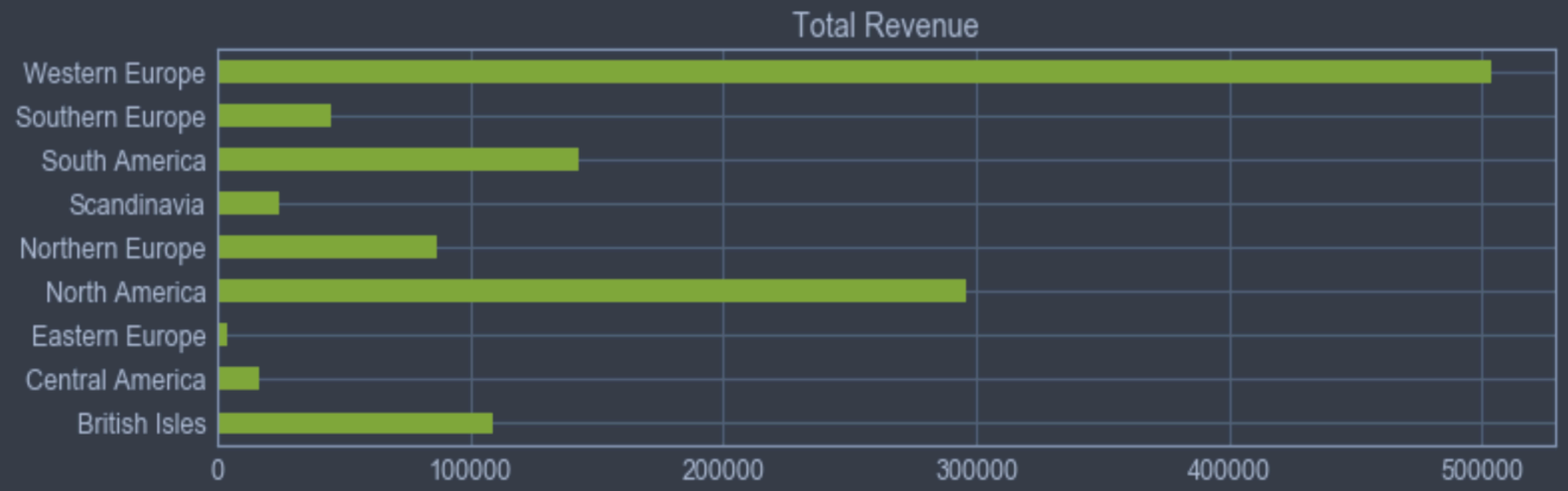
Create a ***strategy*** for Northwind decision makers to improve business processes and revenue streams.

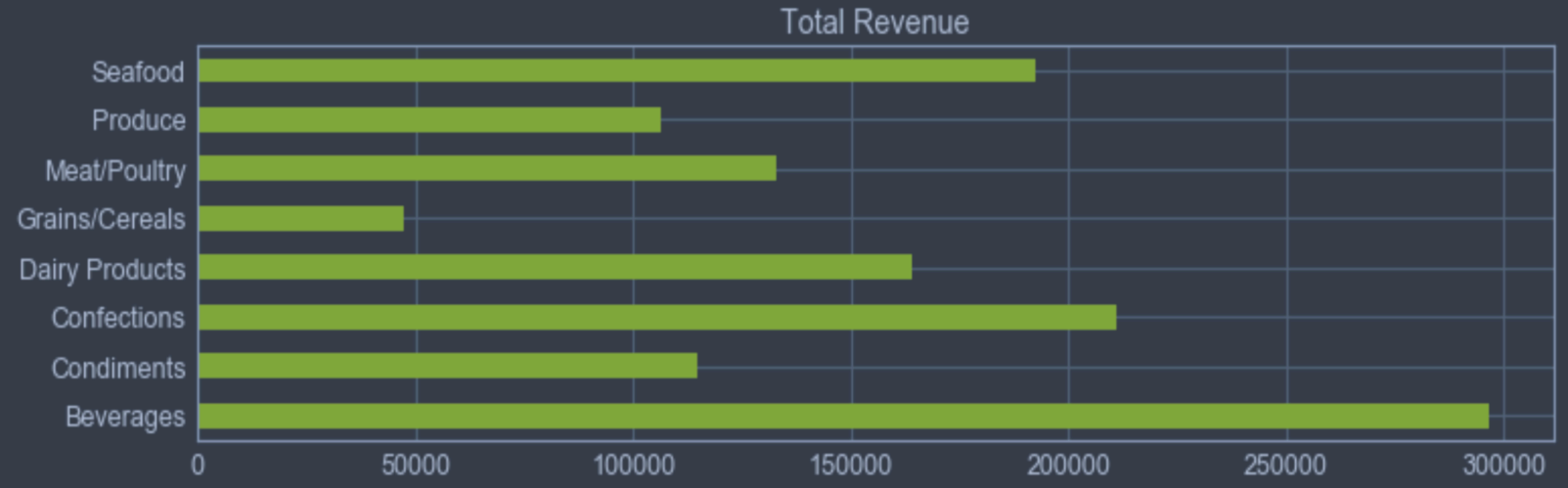
What is the *strategy*?

Use hypothesis testing on several characteristics within the Northwind database.

What are the most important characteristics?

- Orders
- Products
- Regions
- Customers
- Categories





Recommendation 1 :

Add 5% Discounts to Products

Can discounts improve unit sales?

Discount = More Unit Sales

Avg. discount adds 5.4 units to an order.

Optimum level of discount is 5%.

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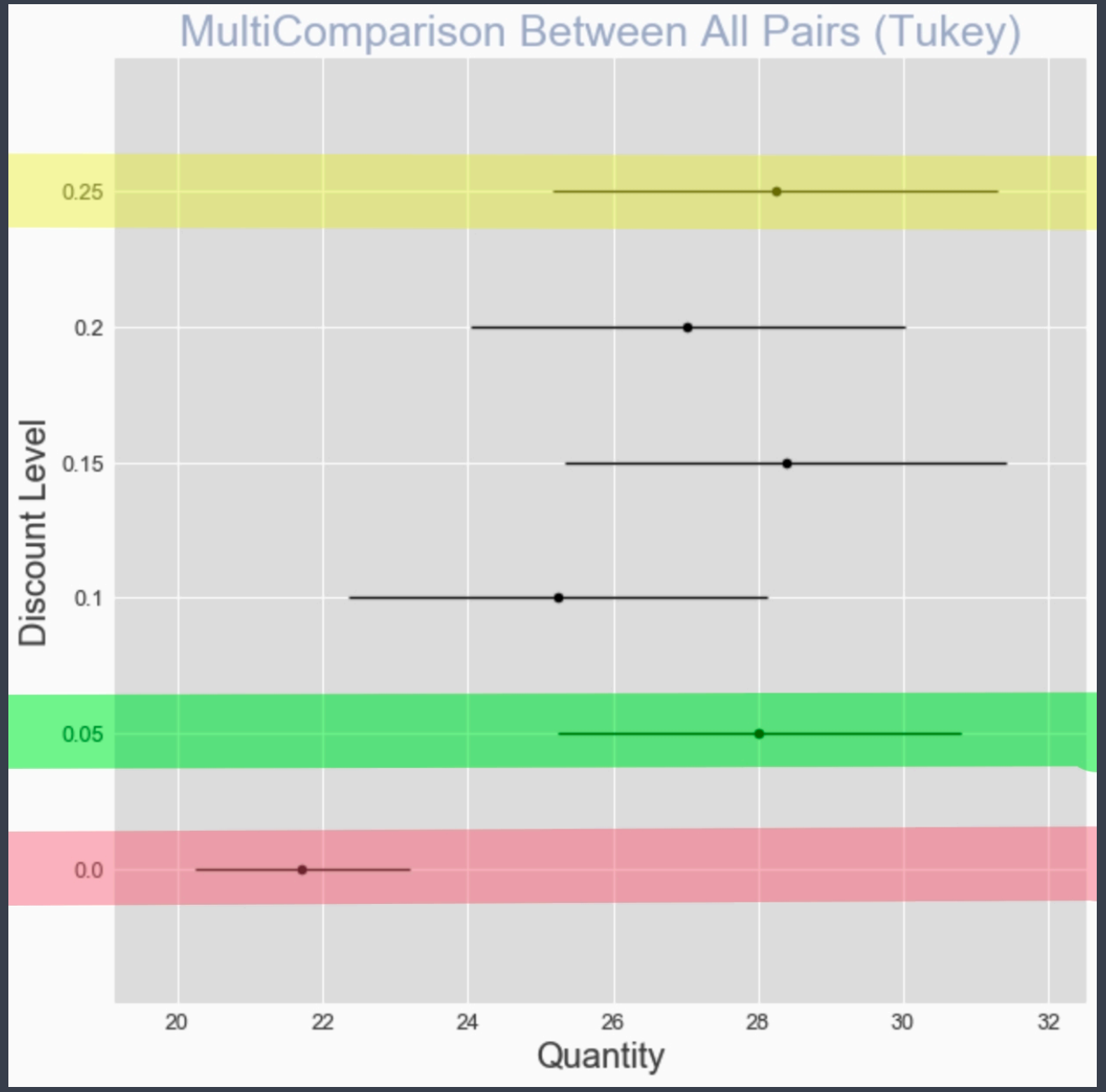
Add 5% Discounts to Products

Avg. discount adds 5.4 units to an order.

5% discount adds 6.2 units to an order.

5% discount saves revenue and adds sales.



Recommendation 2 :

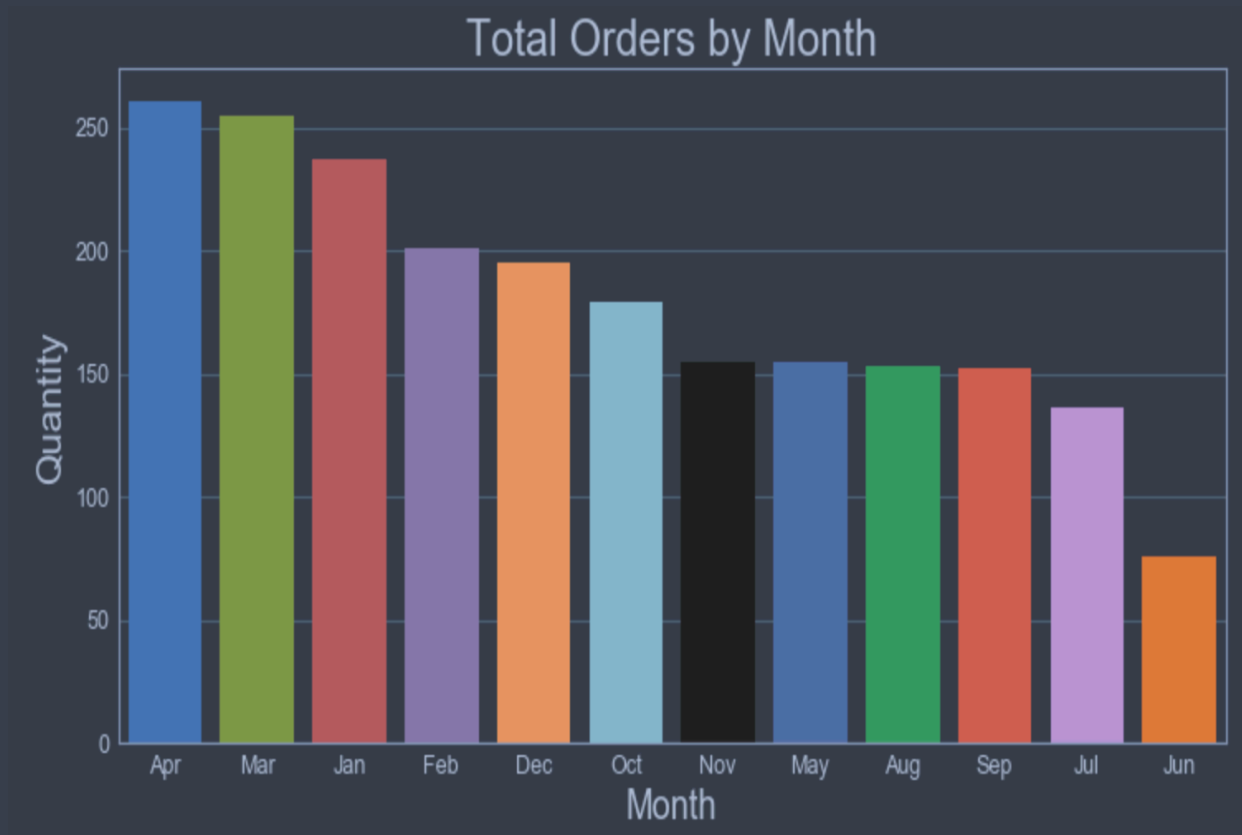
Stock Up Before Quarter 1

More products ordered in various months of the year?

Order quantities are much higher in Quarter 1.

44% of all orders are completed in Q1.

Q1 incurs a higher than average order size.



Recommendation 3 :

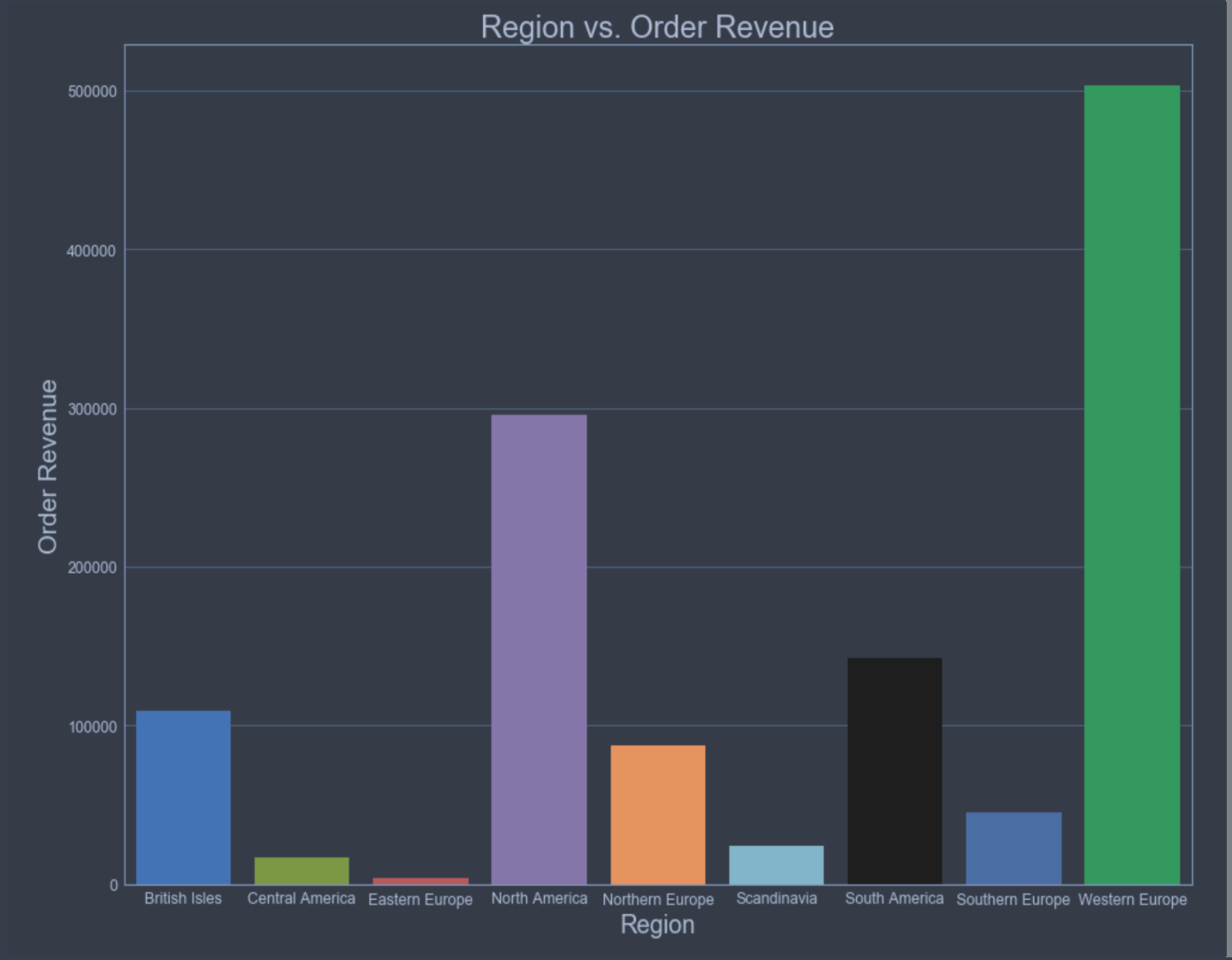
Target North America

Does revenue vary between different regions?

Western Europe = Most Orders + Revenue.

35% of orders are from Western Europe.

37% of revenue are from Western Europe.



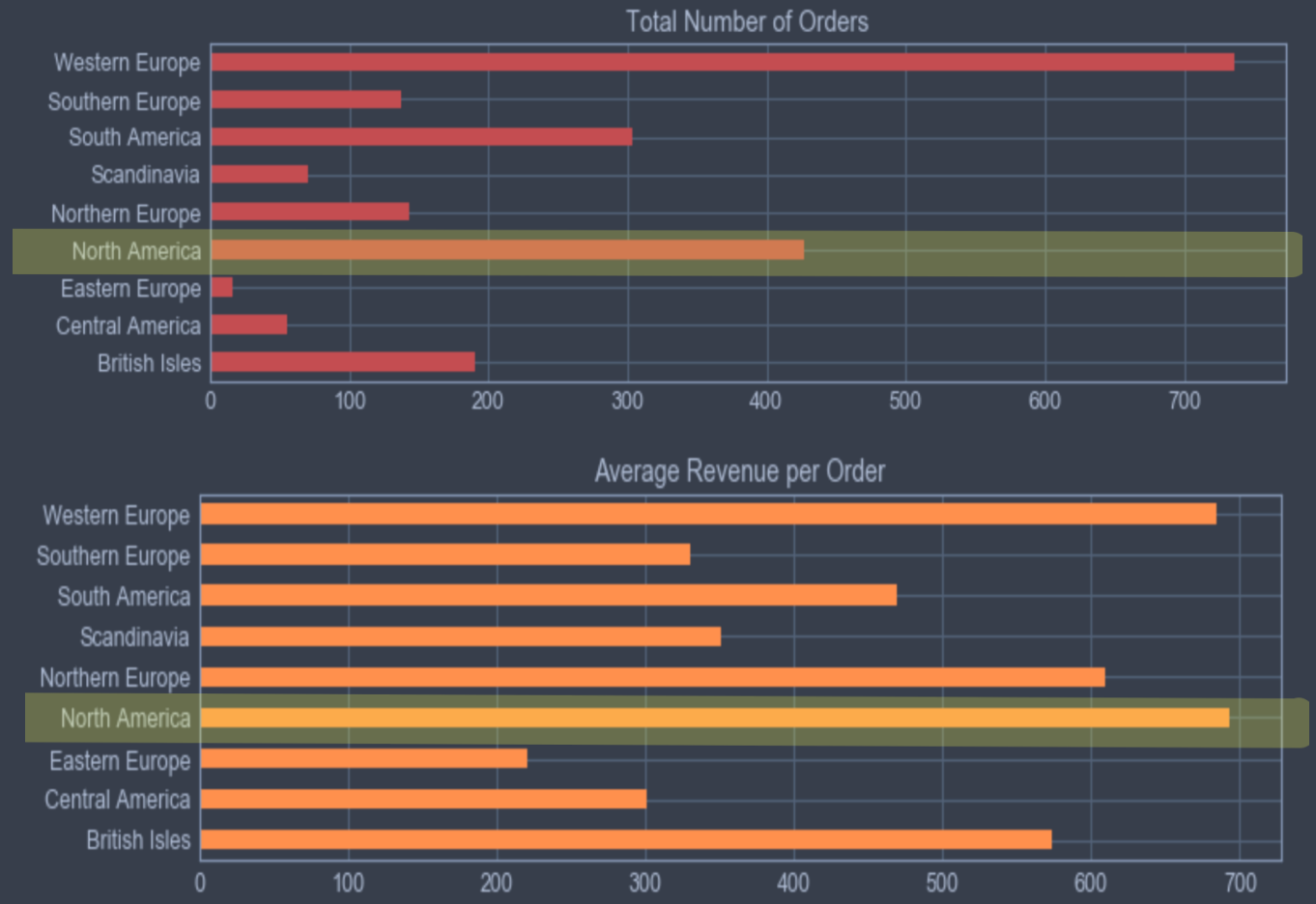
Recommendation 3 :

Target North America

NA customers have placed half as many orders.

NA customers spend more per order, on average.

NA customers spend $8 more orders compared to Western Europe.



Recommendation 4 :

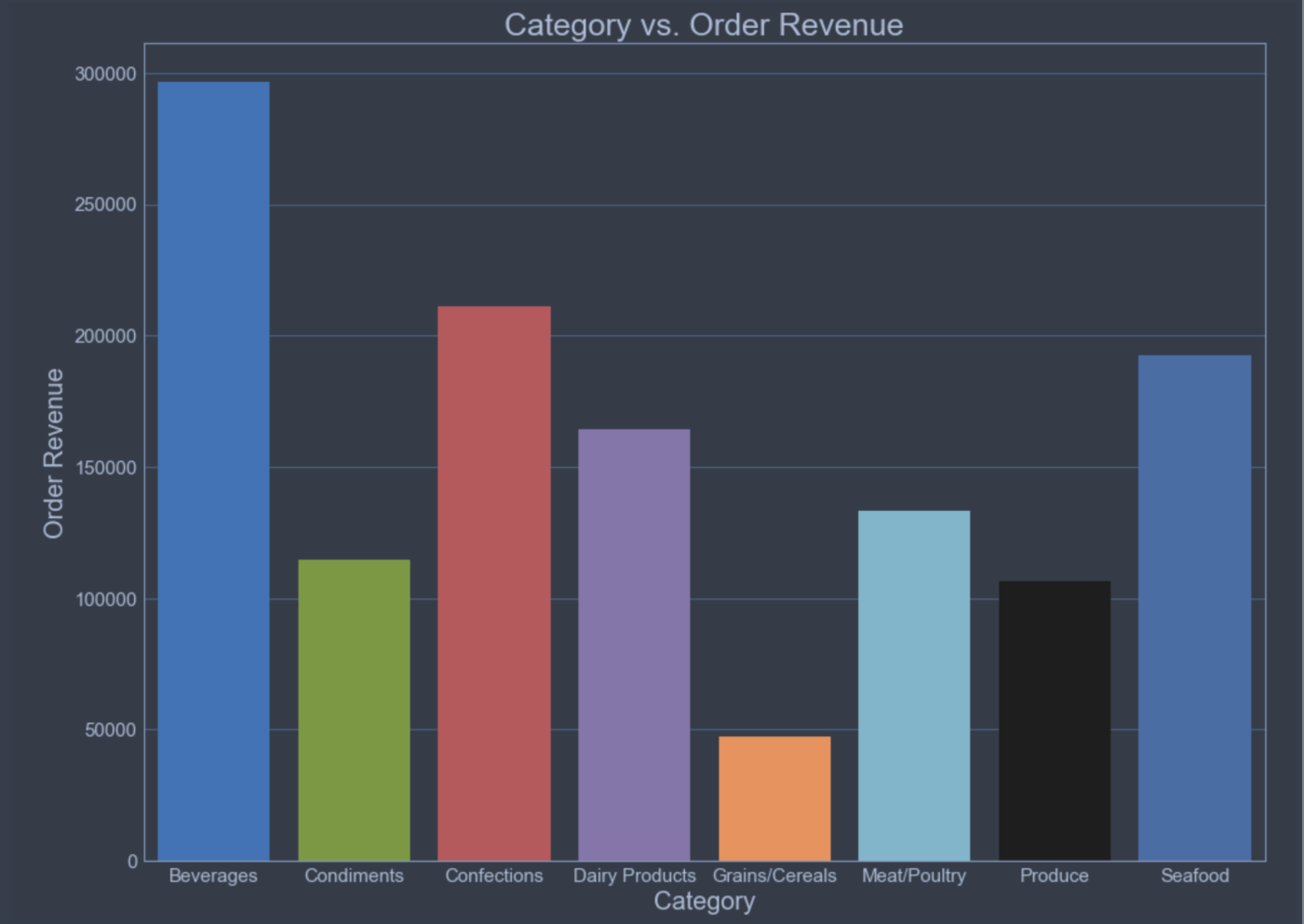
Sell more meat/poultry products

Does revenue vary between different products?

Beverages = Most Orders + Revenue.

20% of orders come from beverages.

22% of revenue comes from beverages.



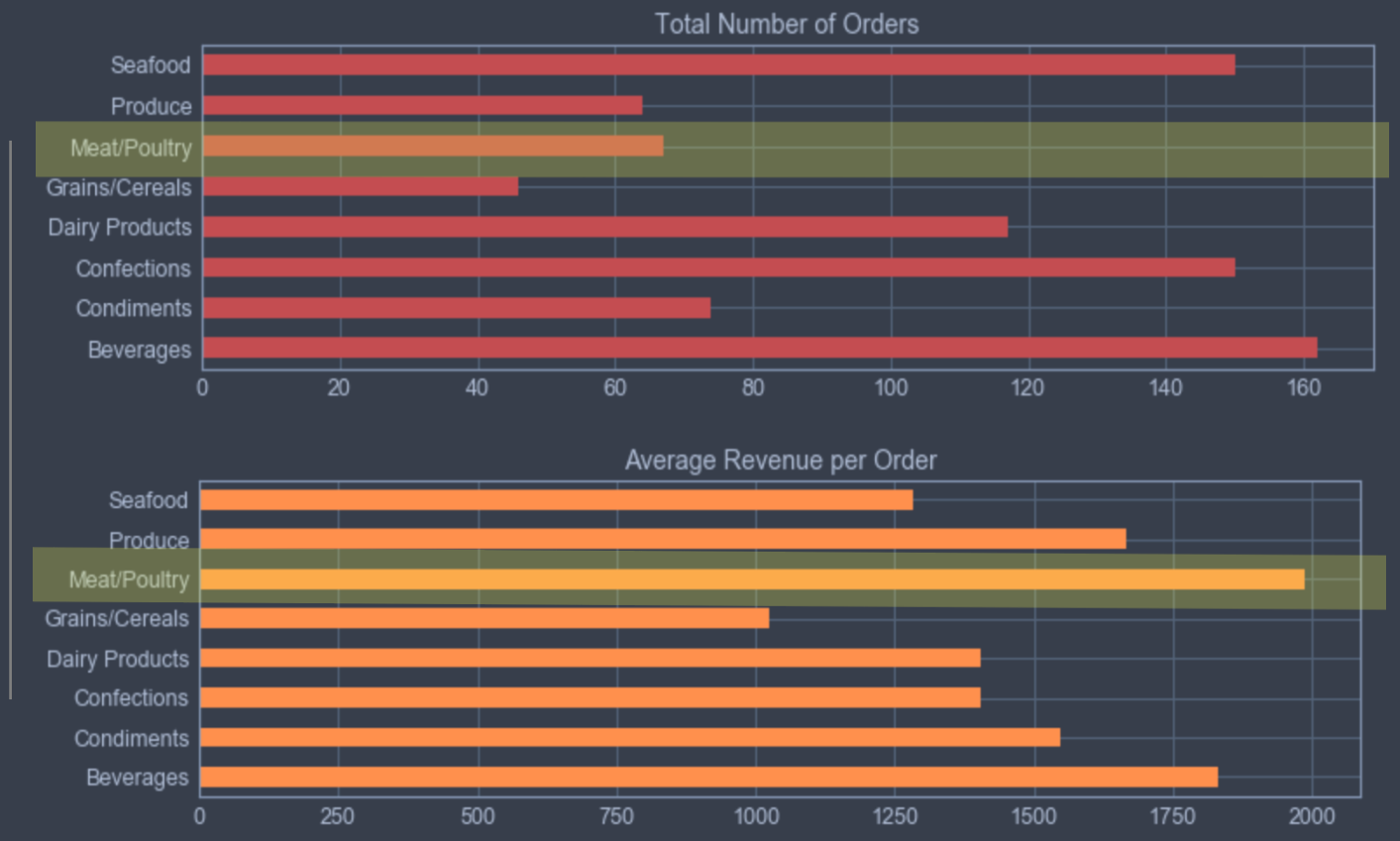
Recommendation 4 :

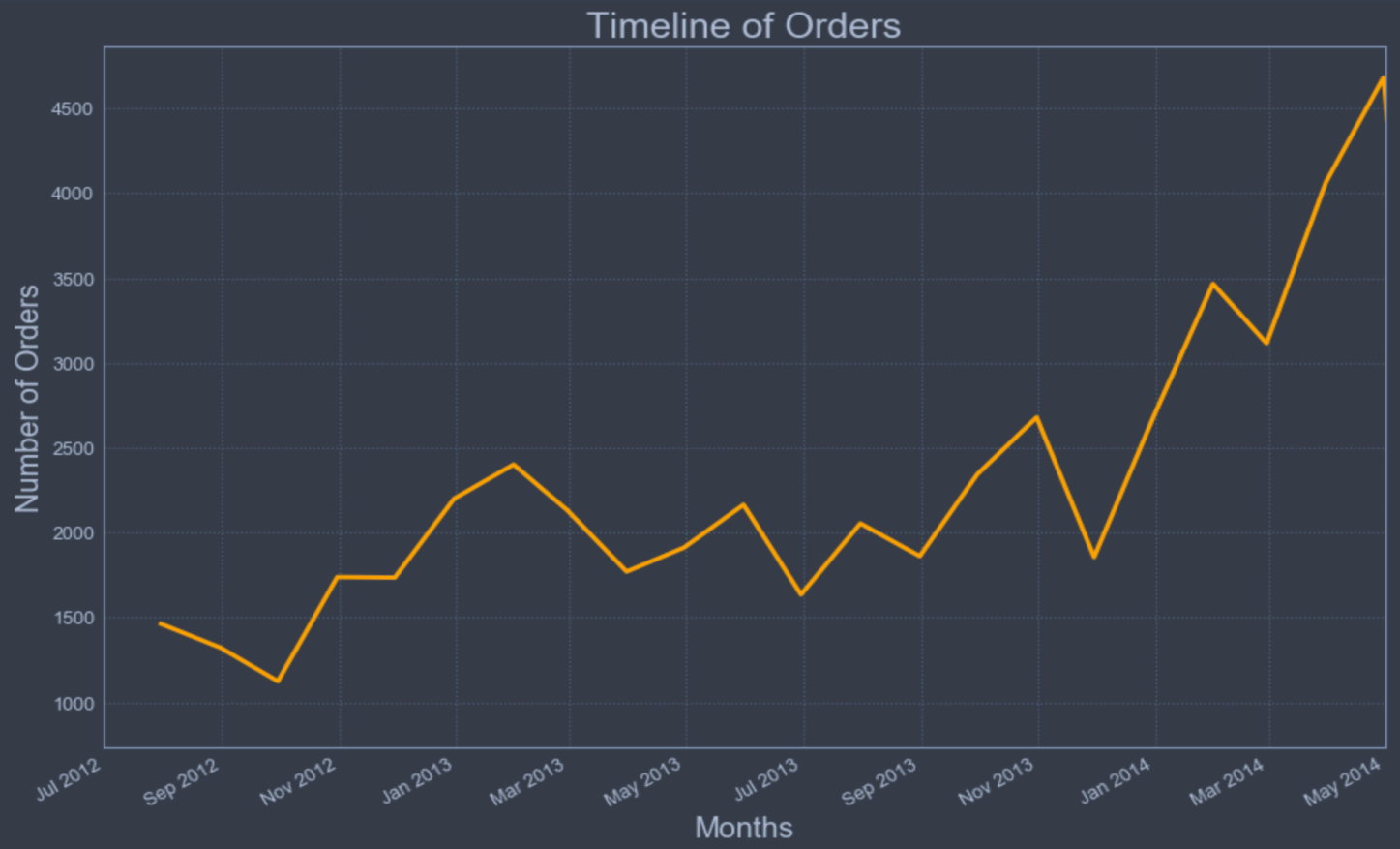
Sell more meat/poultry products

Meat/poultry ordered 2.4x less than beverages.

Meat/poultry accounts for the highest per order revenue.

Customers spend $200 more on meat/poultry.





Q1 = Sell More Products

5% = Best Discount Bracket

Meat/Poultry = Growth Opportunity

North America = Growth Opportunity

Overall Recommendation:

Before the start of Q1 next year, run a 5% discount promotion on meat/poultry products for North American consumers.

If there was more data…

Information on Cost of Goods Sold

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Further analysis of:

- Product Profits
- Economies of Scale
- Distribution Costs

THANK YOU!