

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 test?

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

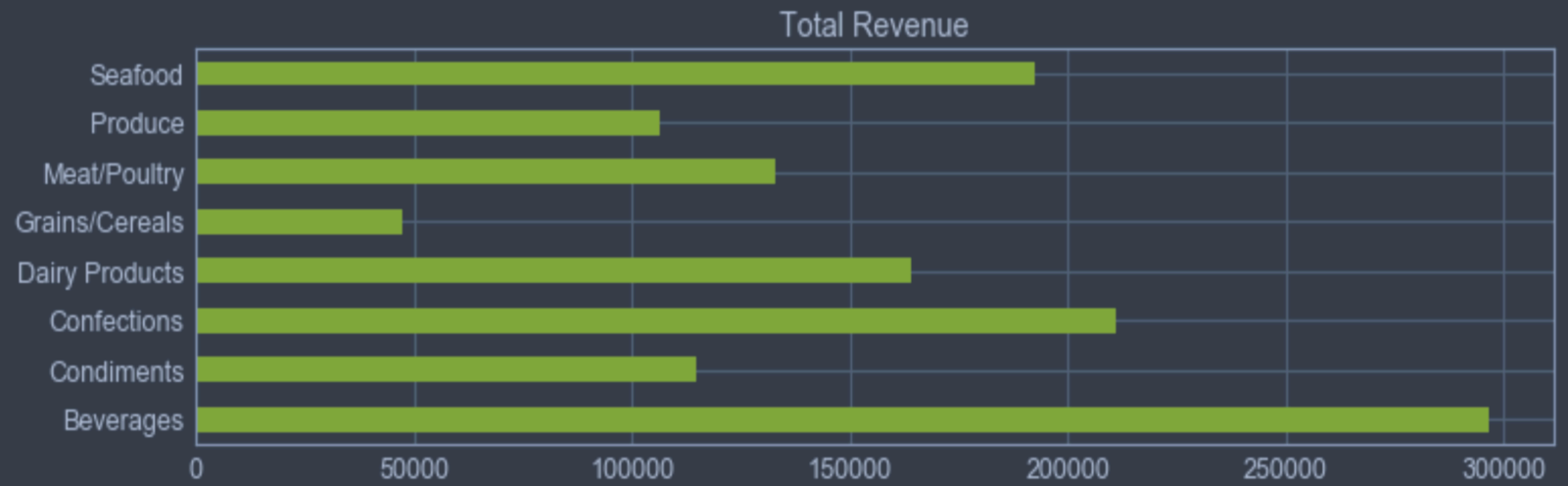
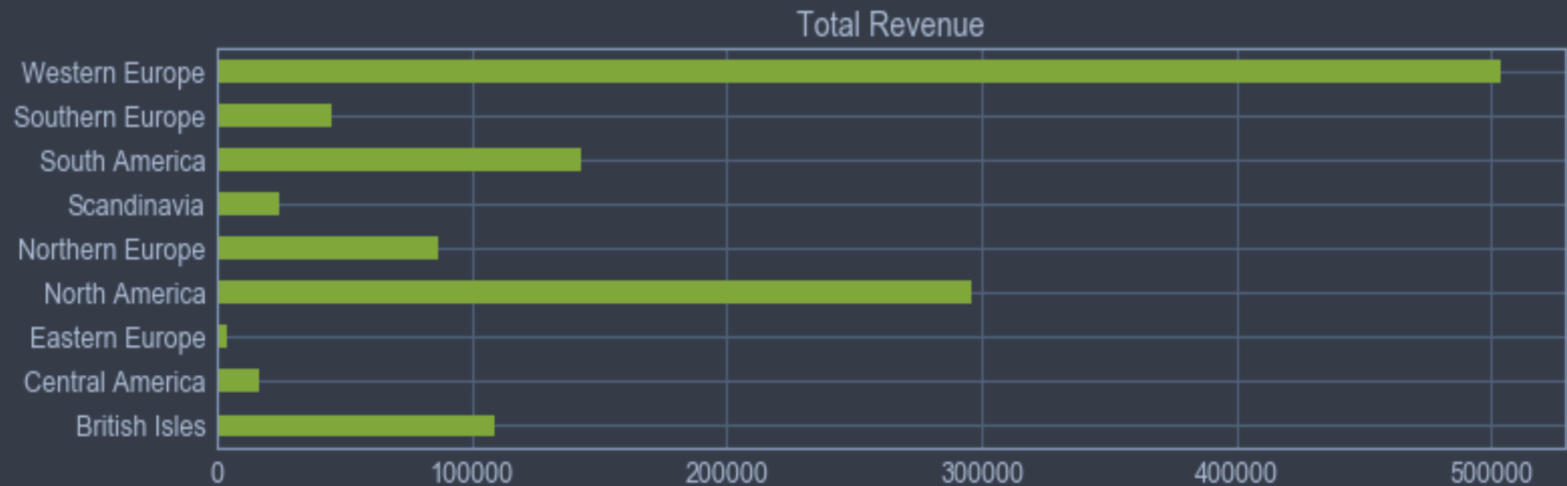
What is the *strategy*?

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%.



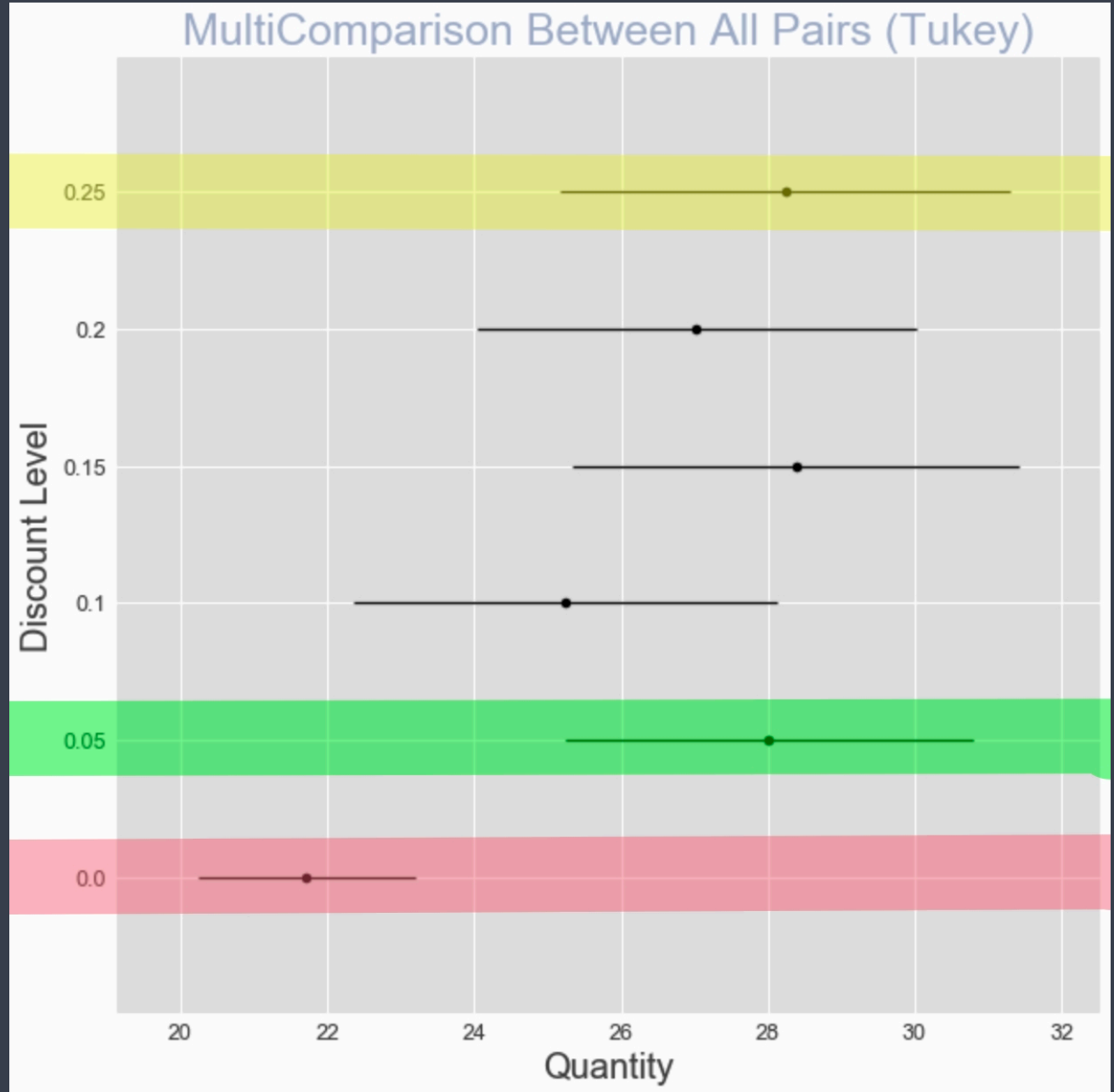
Recommendation 1 :

*Add 5% Discounts to
Products*

Avg. discount adds 5.4 units
to an order.

5% discount adds 6.1 units to
an order.

5% discount saves revenue
and adds sales.



Recommendation 2 :

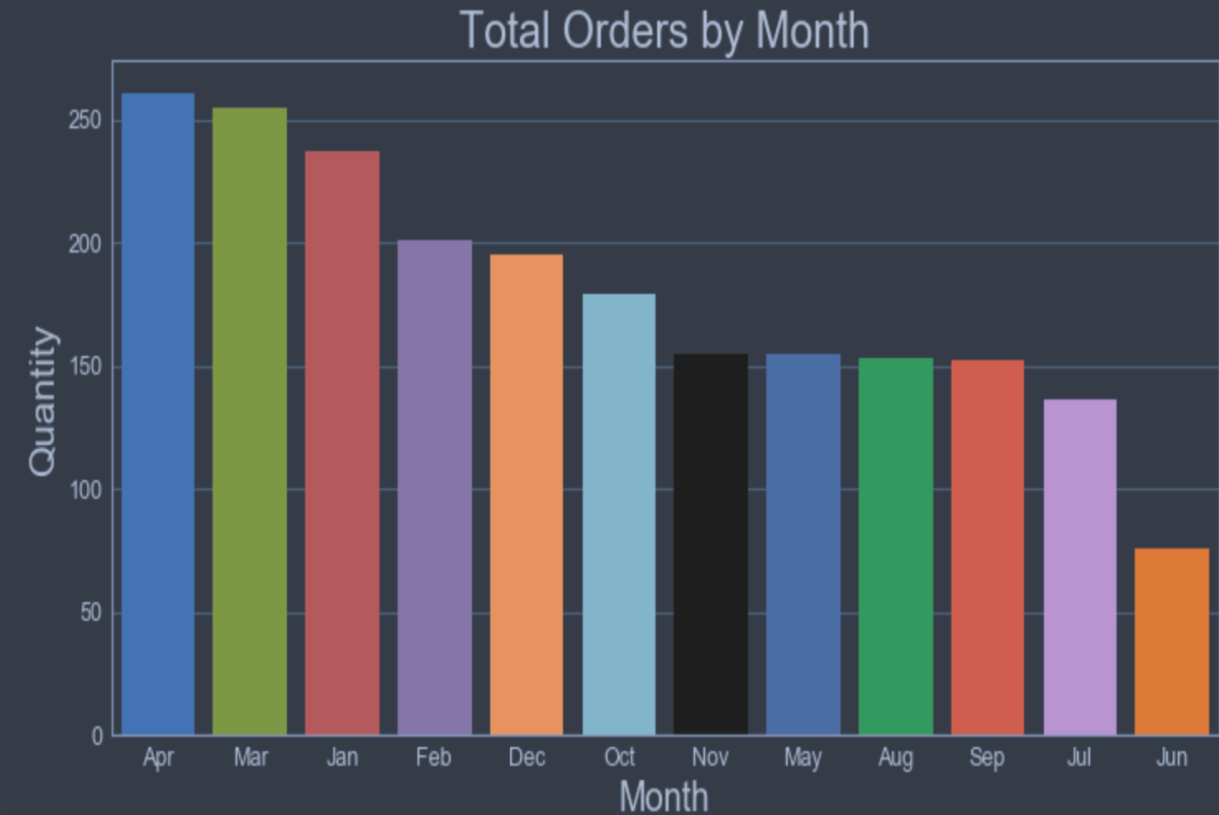
Stock Up Before Quarter 1

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 :

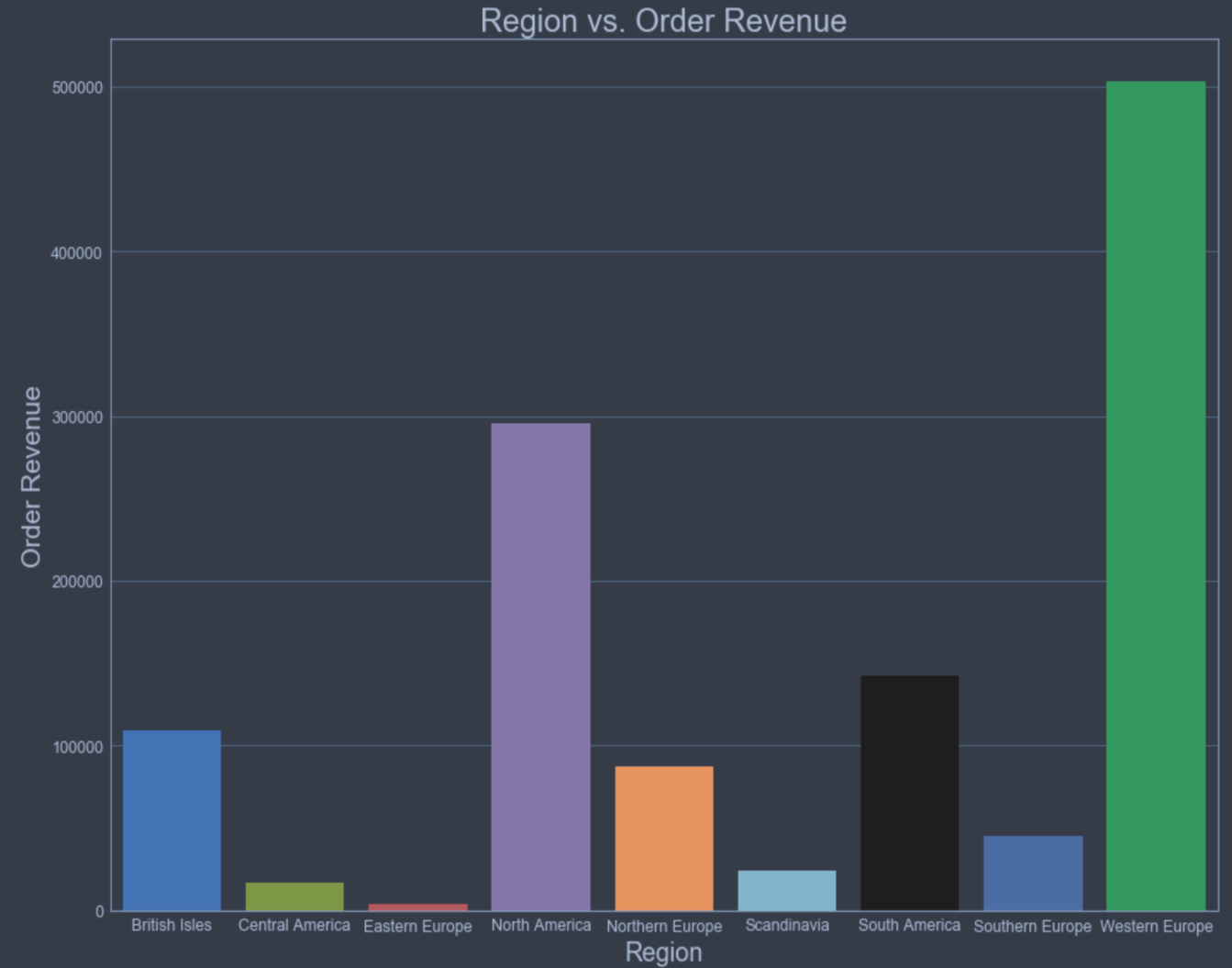
Target North America

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.



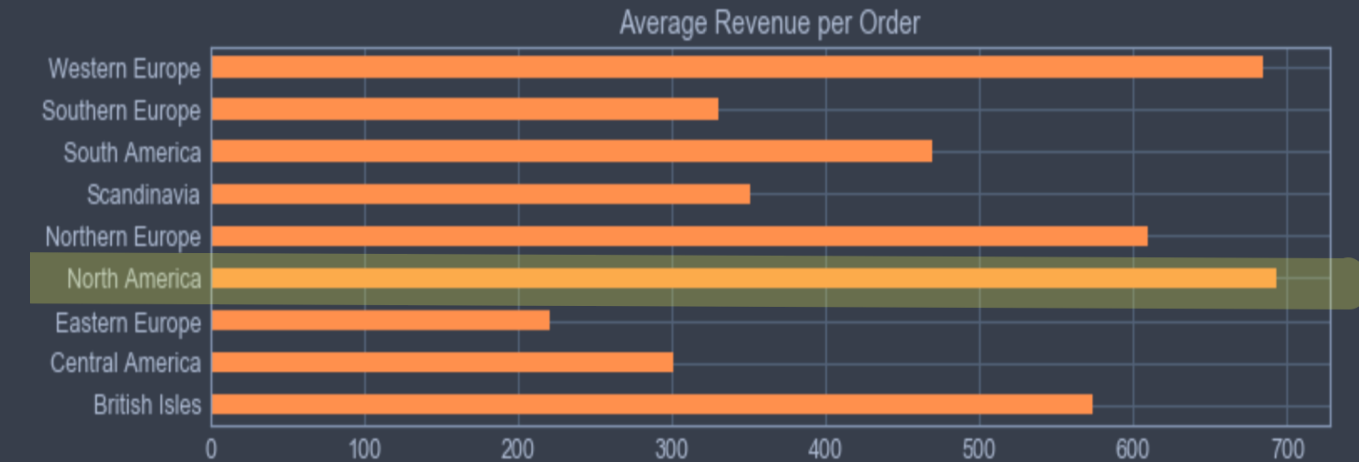
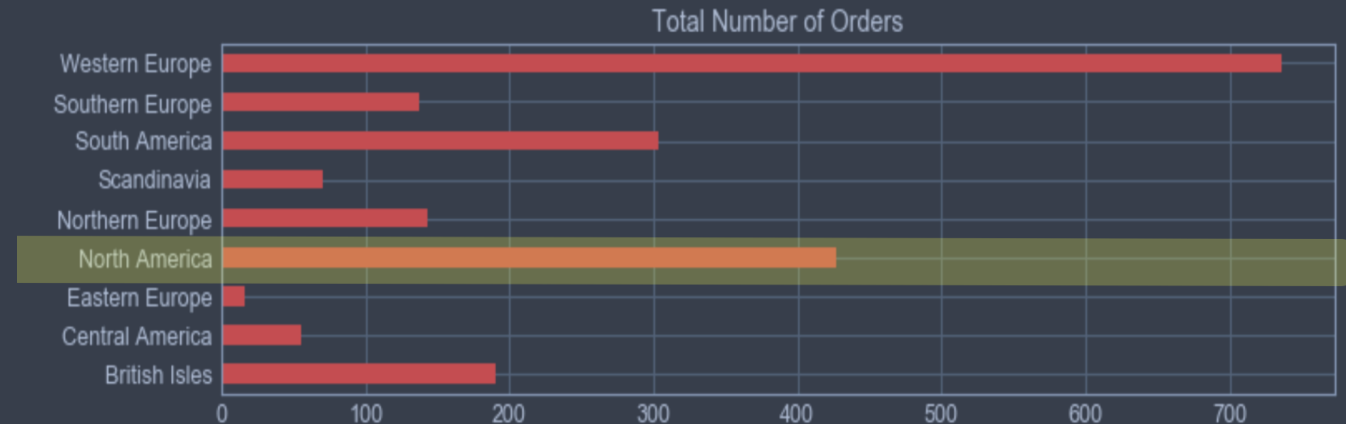
Recommendation 3 :

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 :

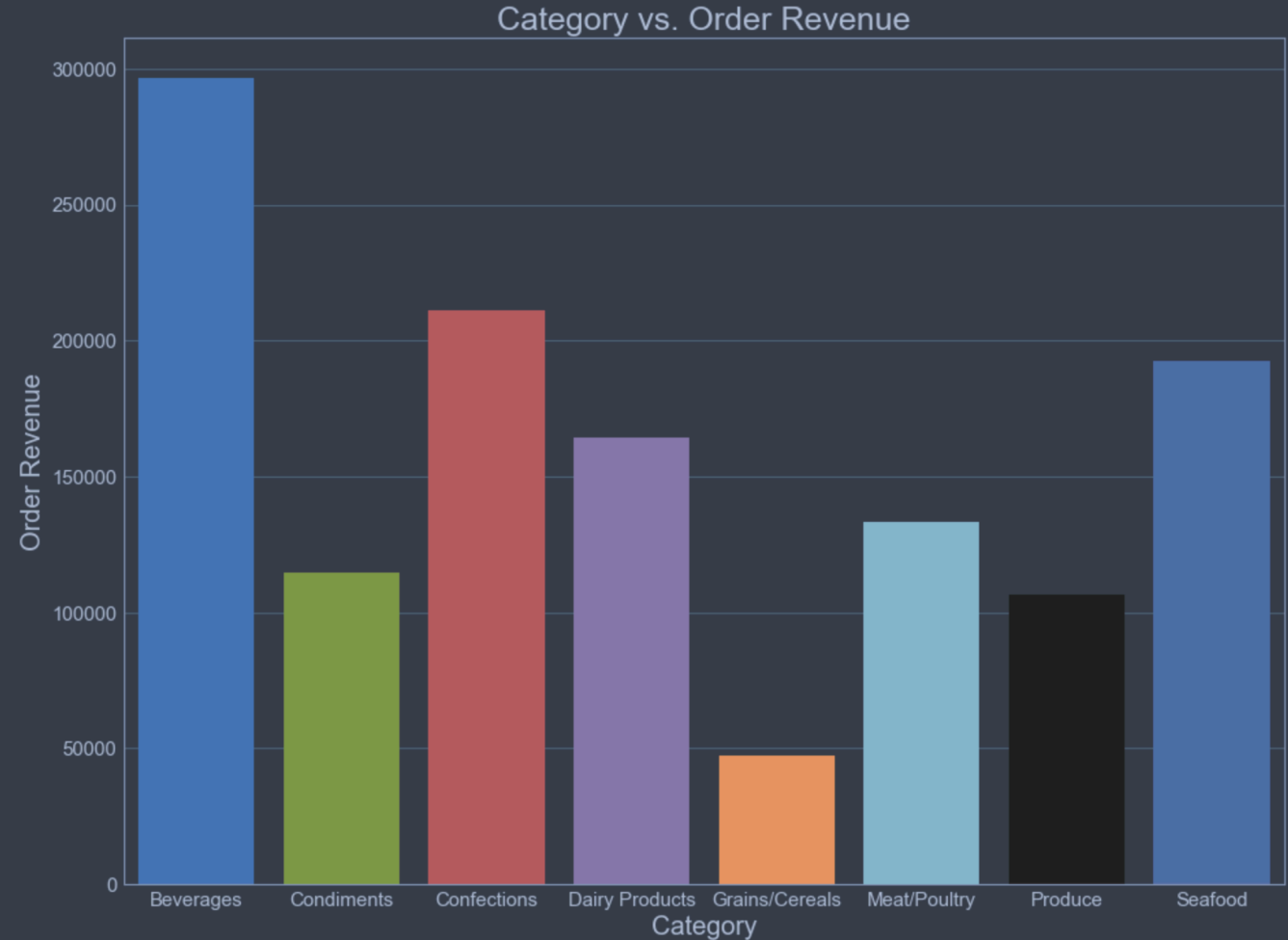
Sell more meat/poultry products

Does revenue vary between different products?

Beverages = Most Orders + Revenue.

20% of orders come from beverages.

22% of revenue comes from beverages.



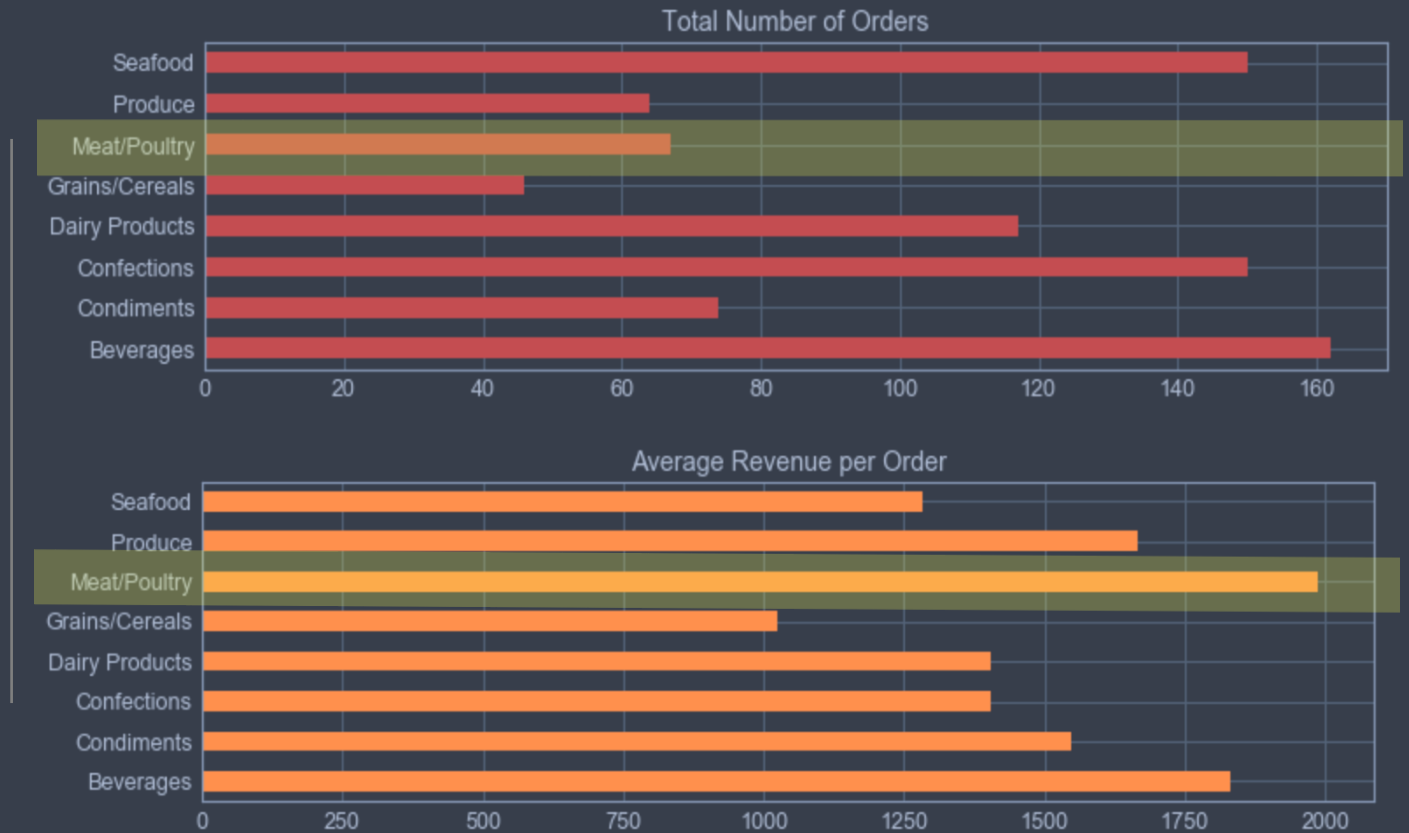
Recommendation 4 :

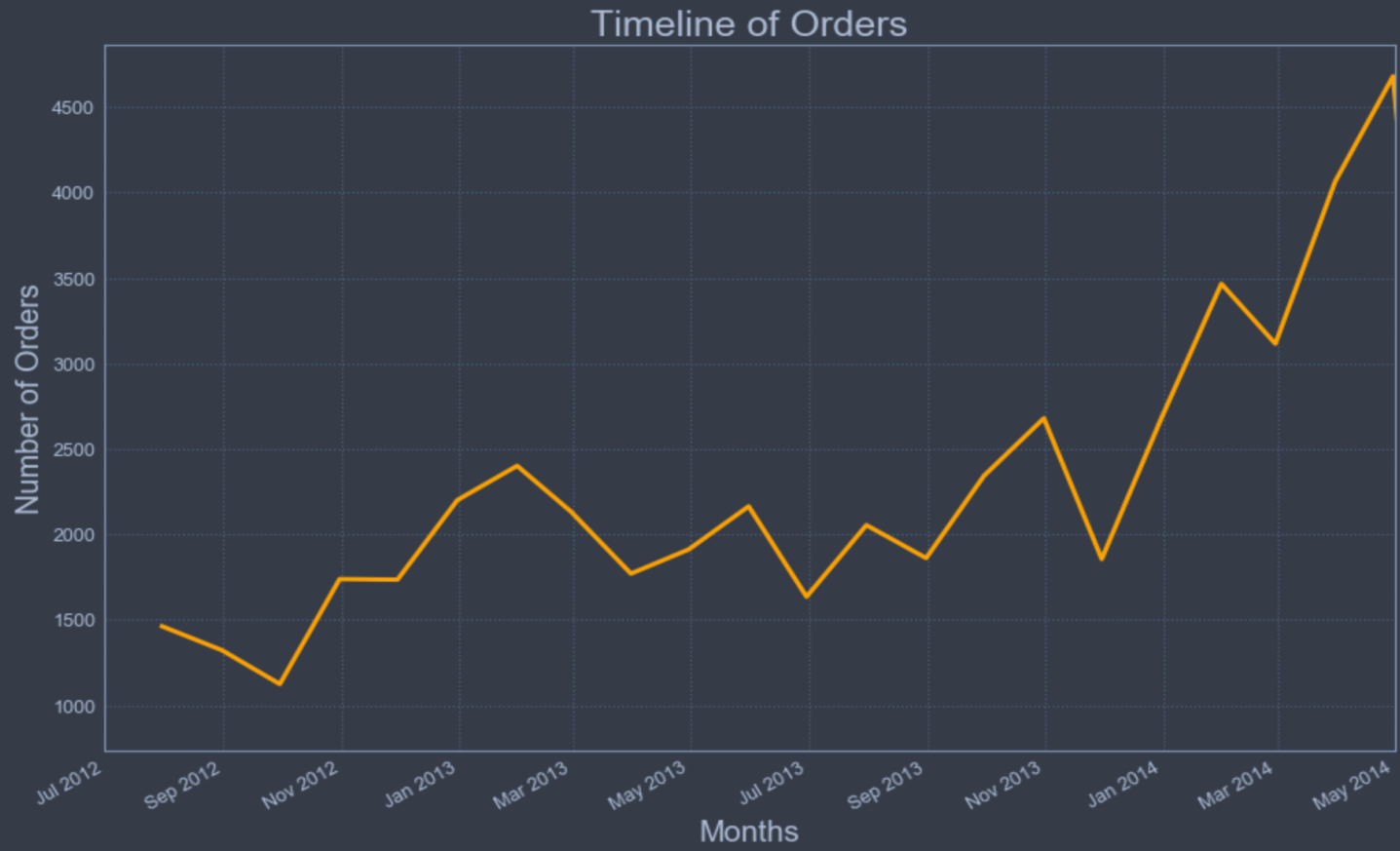
Sell more meat/poultry products

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

=

Further analysis of:

- Product Profits
- Economies of Scale
- Distribution Costs



THANKYOU!

