

Module 3 Presentation

Northwind Traders

Michael Cheng

Introduction

The database contains sales data for a fictitious company which imports and exports specialty foods from around the world.

Goals

- * Gather information from the database
- * Perform hypothesis testings to generate valuable insights

Statistical Significant

- * The likelihood that a relationship between 2 or more variables is caused by something other than random chance
- * Significance level = 0.05
Only 5% risk of wrong conclusion

Does discount amount have a statistically significant effect on the quantity of a product in an order?

- * Yes, more products are sold when there is a discount.
- * Discounts of 5% have similar increase in sales comparing to discounts up to 25%.

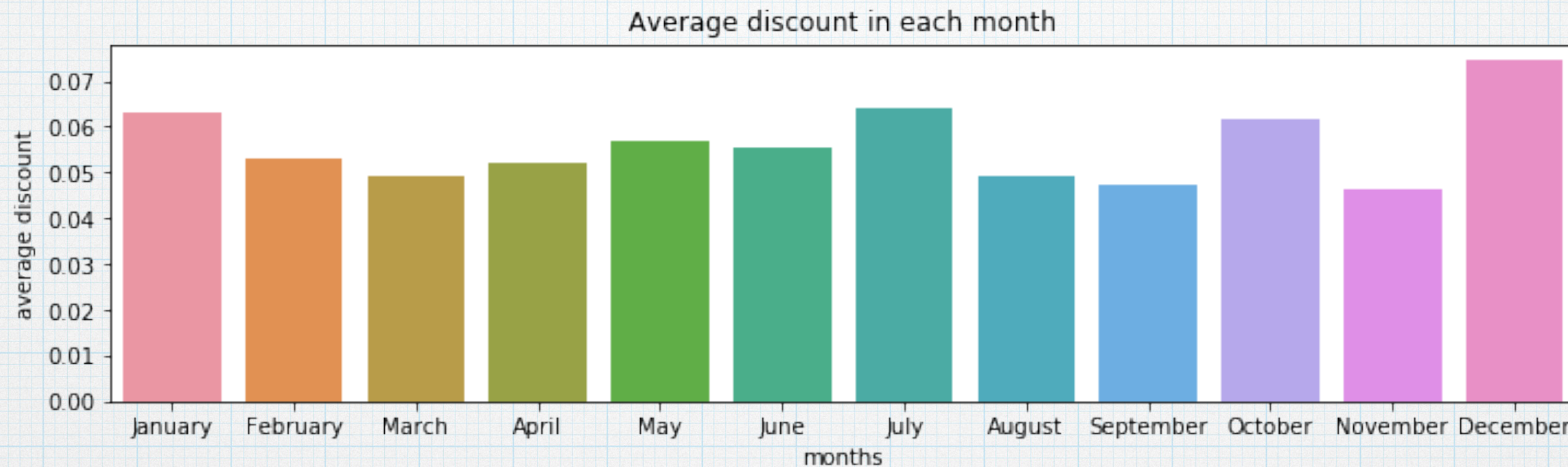
Is there a statistically significant difference
in prices of shipping companies?

- * 3 shipping companies: United Package, Federal Shipping, Speedy Express
- * No statistically significant difference in prices

Is there a statistically significant difference in order quantity each month?

- * Yes, customers are placing larger orders in certain months of the year.

Is there a statistically significant difference in discount each month?



- * Yes, there is a statistically significant difference in discount between different months.

Is there a statistically significant difference
in discount in different categories?

- * No, discounts are similar over different categories.

Is there a statistically significant difference in order quantity from different regions?

- * 9 regions: Western Europe, Eastern Europe, Northern Europe, Scandinavia, British Isles, Southern Europe, North America, Central America, South America
- * Yes, there is a statistically significant difference in order quantity from different regions.

Future Work

- * What kinds of products have higher demand in certain months?
- * Which shipping company is the most efficient?
- * Extra discounts in slower months
- * Marketing campaign in regions with lower sales

Thank you