

Northwind Traders analysis: results and key insights

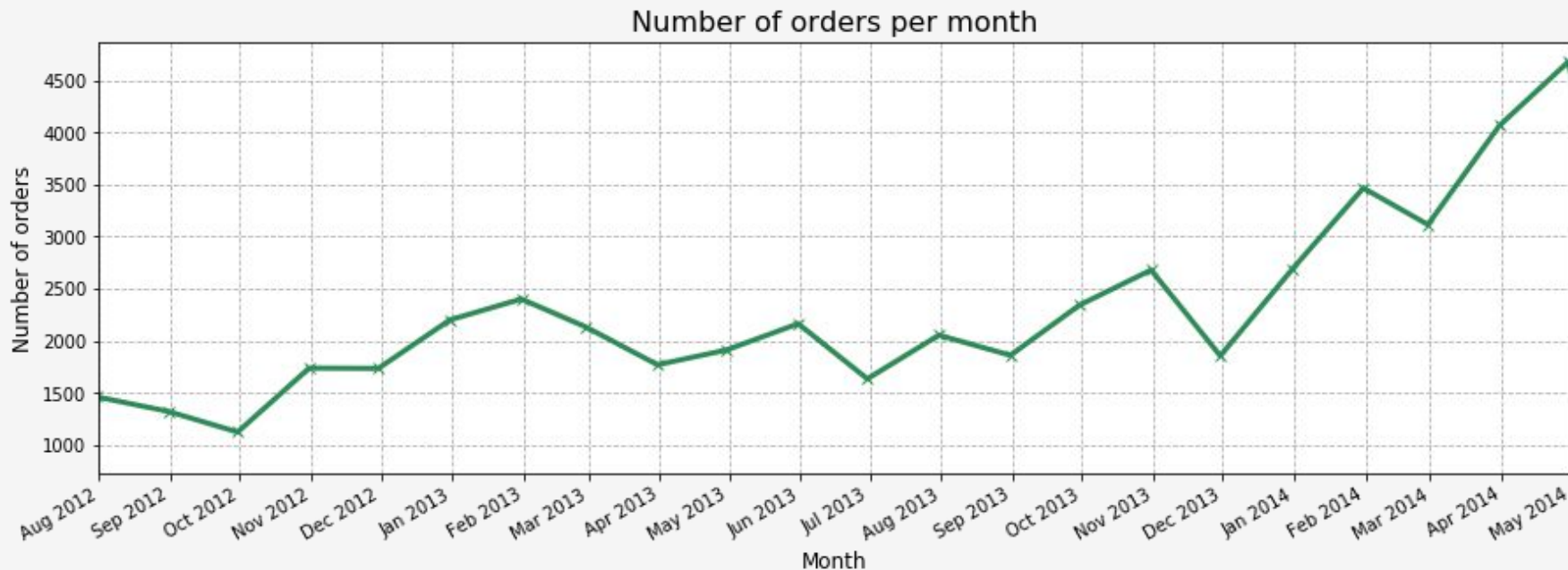
...

Laura Lewis

Presentation to the senior management team, May 2014

Problem statement

We need to understand the factors in our success and what levers we can pull to further increase revenue



Business value



Better understand our customers



Generate more orders



Sell more items per order



Increase the value of each order

Methodology

Gather data from our company's database

Generate four specific questions about the business

Hypothesis testing - t-tests and ANOVA (analysis of variance)

Question 1: Do discounts affect the number of products customers order? If so, at what level(s) of discount?

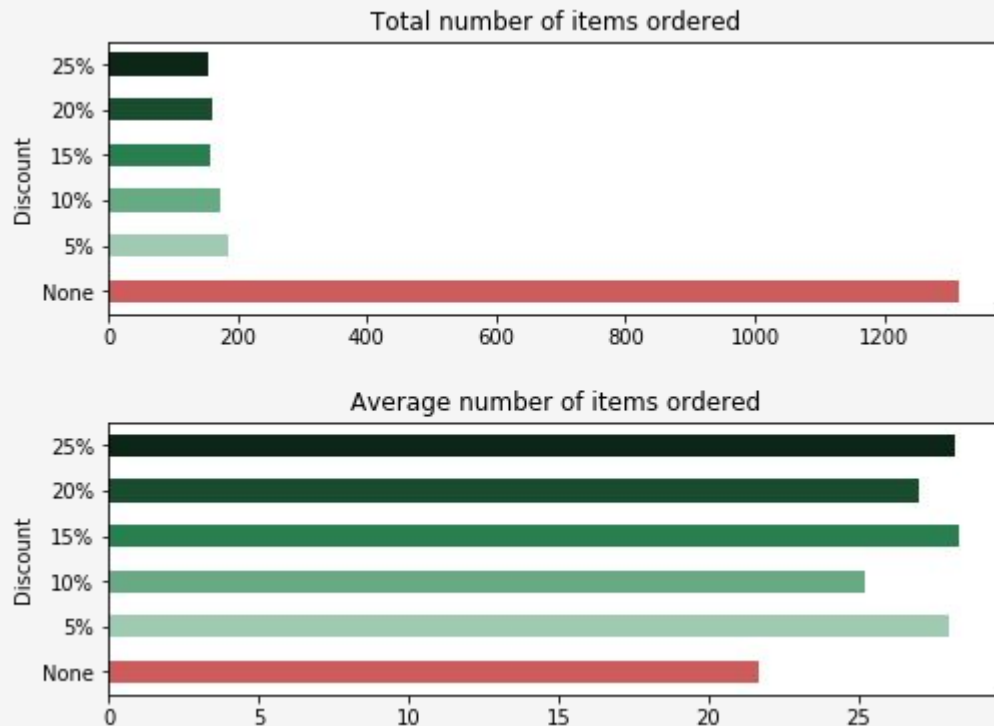
Key findings:

+26%

Increase in the average number of items ordered when a discount (of any level) is given

5%

Recommended discount level



Question 2: Do discounts affect the amount that a customer spends on their order? If so, at what level(s) of discount, and does offering discounts make back more than they cost?

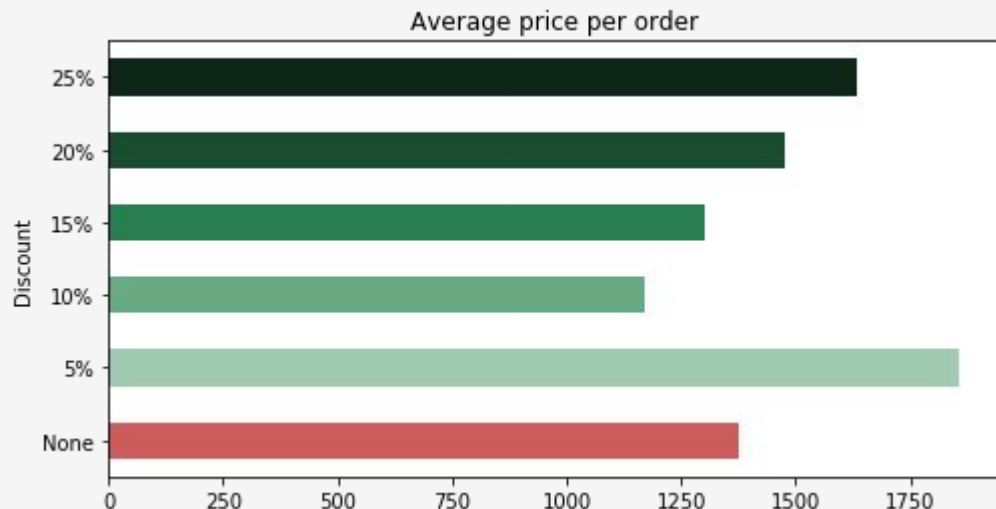
Key findings:

+10%

Increase in the average price per order
when a discount(of any level) is given

5%

Recommended discount level



Question 3: Does the average amount spent per order vary between customers from different regions?

Key findings:

2.8x

Difference between the average expenditure per order from North America compared to Southern and Eastern Europe

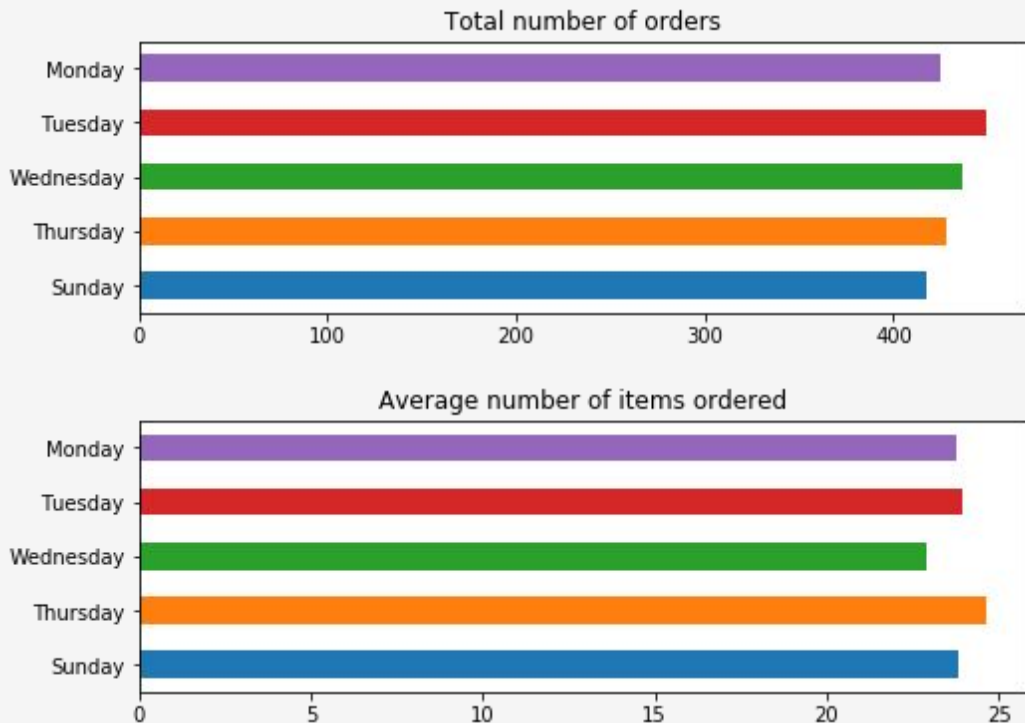


Question 4: Do customers order more products on particular days of the week?

Key findings:

No difference

Customers order similar numbers of products on each day of the week



Business recommendations and future work

More 5% discounts

Need to confirm whether differences are due primarily to discount levels or other factors, e.g. product type

Expand in North America, shrink in Southern and Eastern Europe

Need to confirm whether differences in order price are influenced by other factors, e.g. product availability

Staff each day equally

May be other underlying differences between days, e.g. different order prices or different types of businesses making orders

Questions?