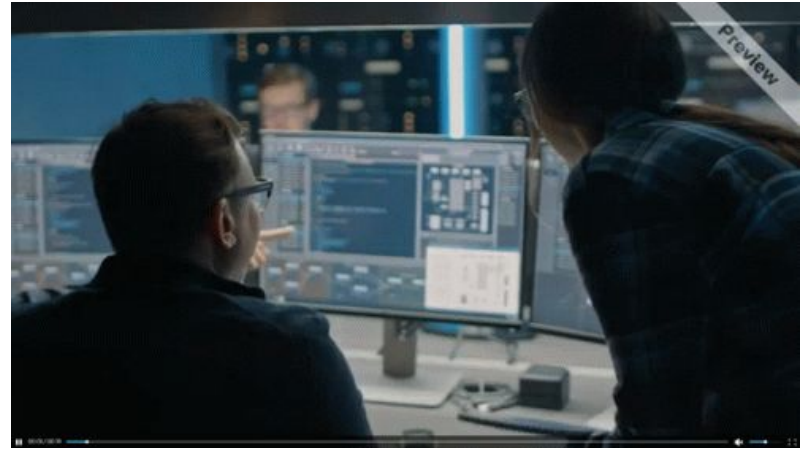# Discounts?

Let's go deeper

Exposition

"If you torture the data long enough, it will confess" - Ronald Coase
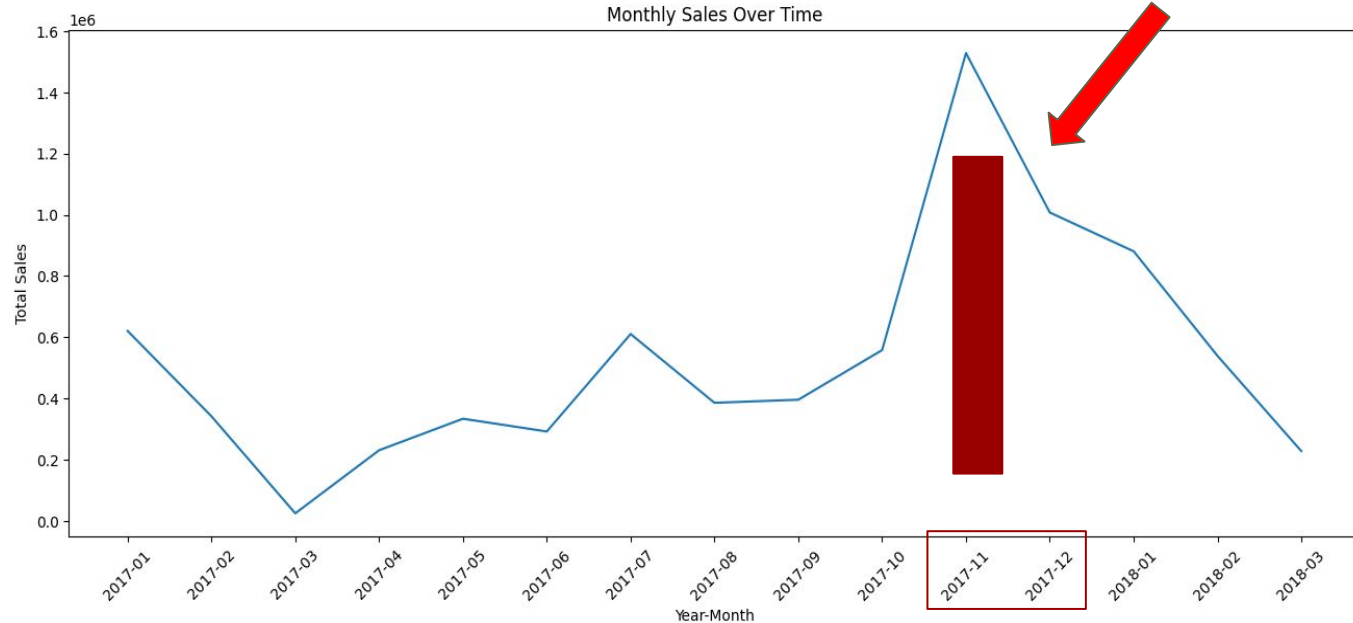
A look at the Product Revenue

1. The Dataset covers a period from `2017-01-01 to 2018-03-04 = 437 days`
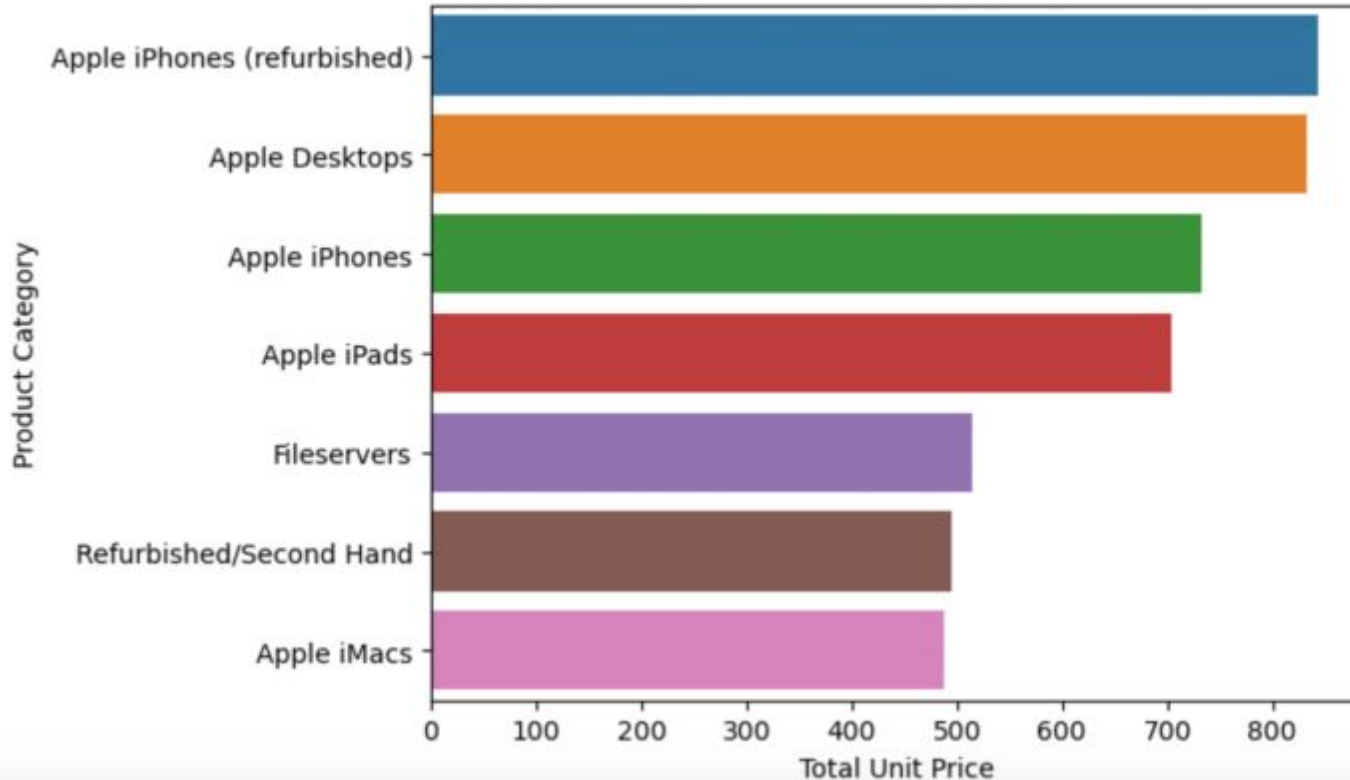
2. `Overall Revenue`
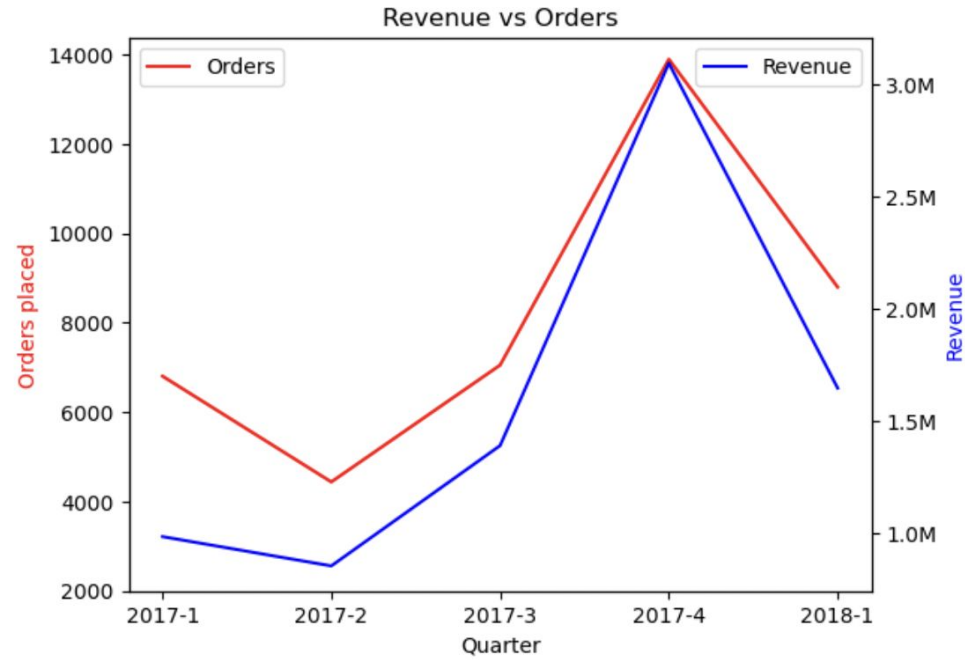
   `7 978 675.6` `euro`

Rising action

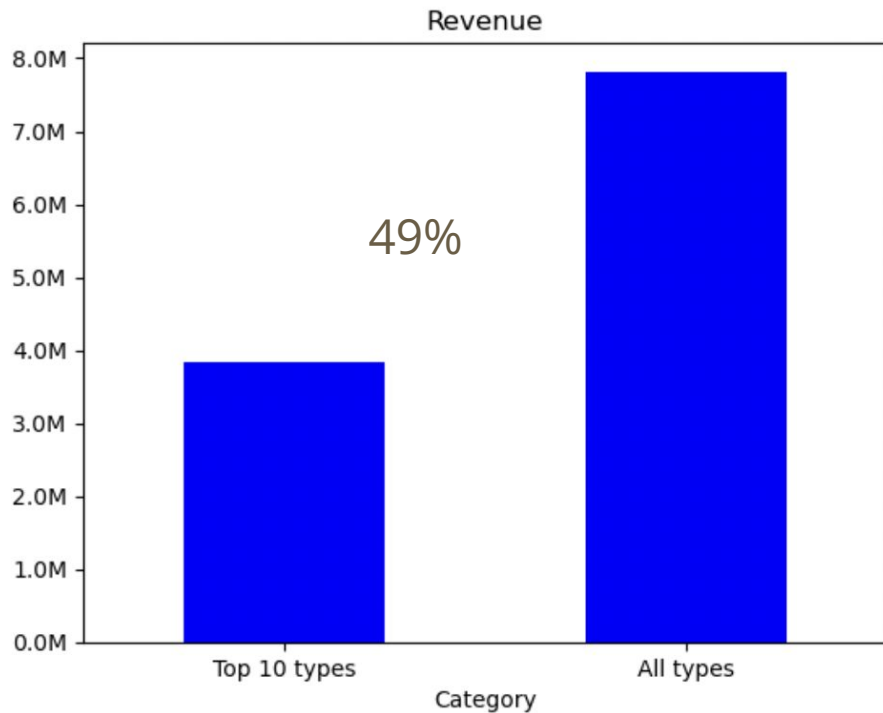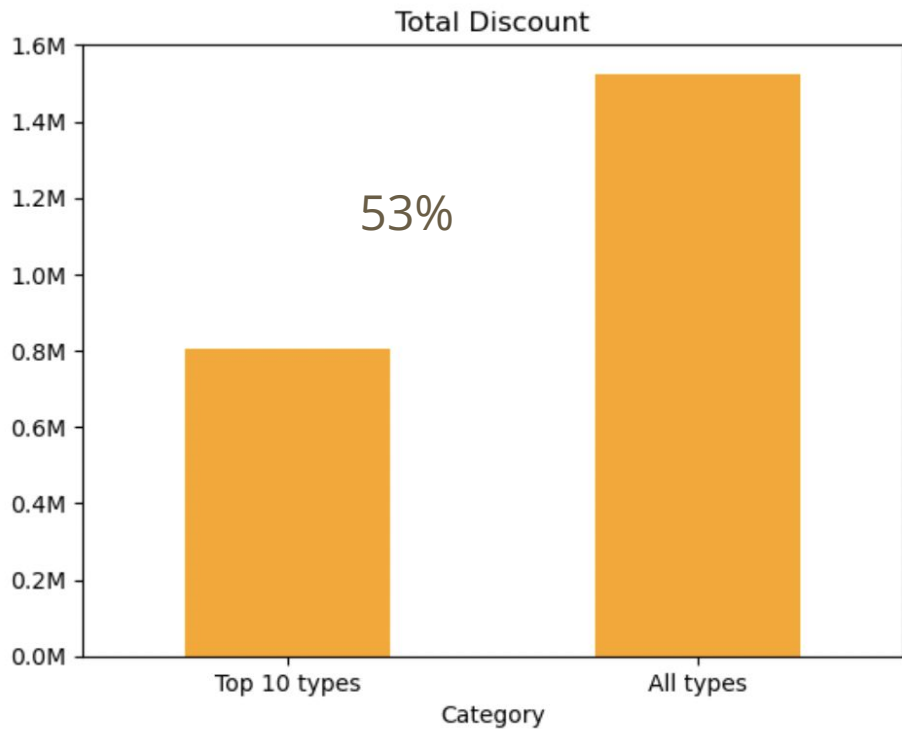*"Without data you're just another person with an opinion"* - W. Edwards Deming

Top Product Categories vs Price

Relief to Investors worry!

Top 10 types/114 of products Revenue/Discount

Remove the discounts from top 10 types??

No Discount :

No historical evidence of sales

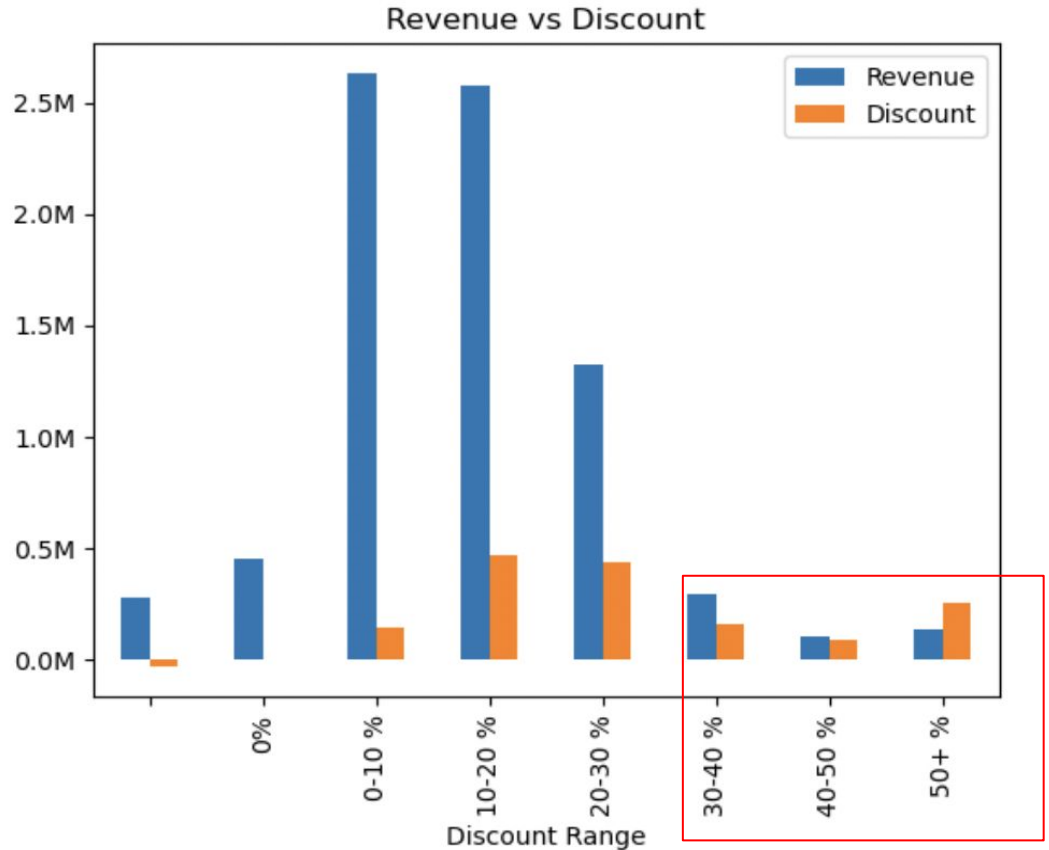Revenue:

with discount= 3,843,926

without discount=193,558

Revenue without/with Discount

Revenue & Discounts for discount ranges

Removing discounts 30+ %:

No impact to the revenue

Positive impact to profitability

Falling Action

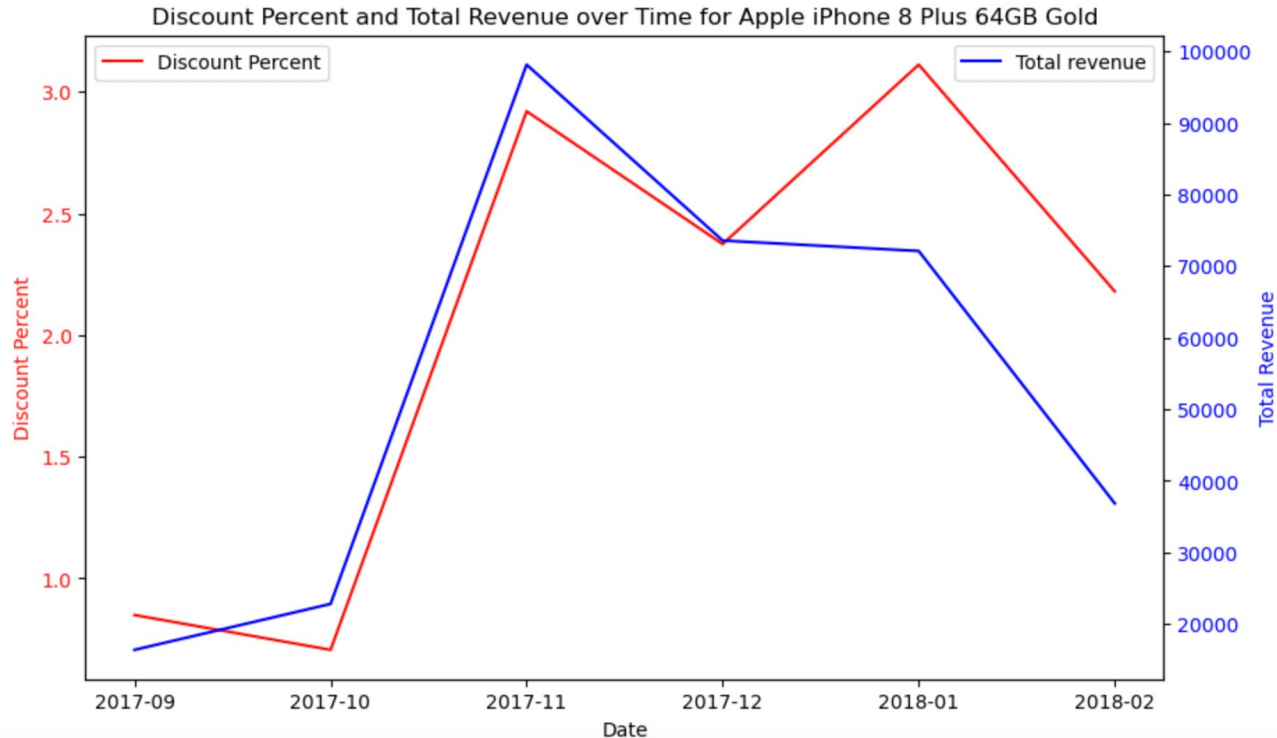*"In God we trust, all others bring data." – W. Edwards Deming*

How can we decide - are the discounts good or not?
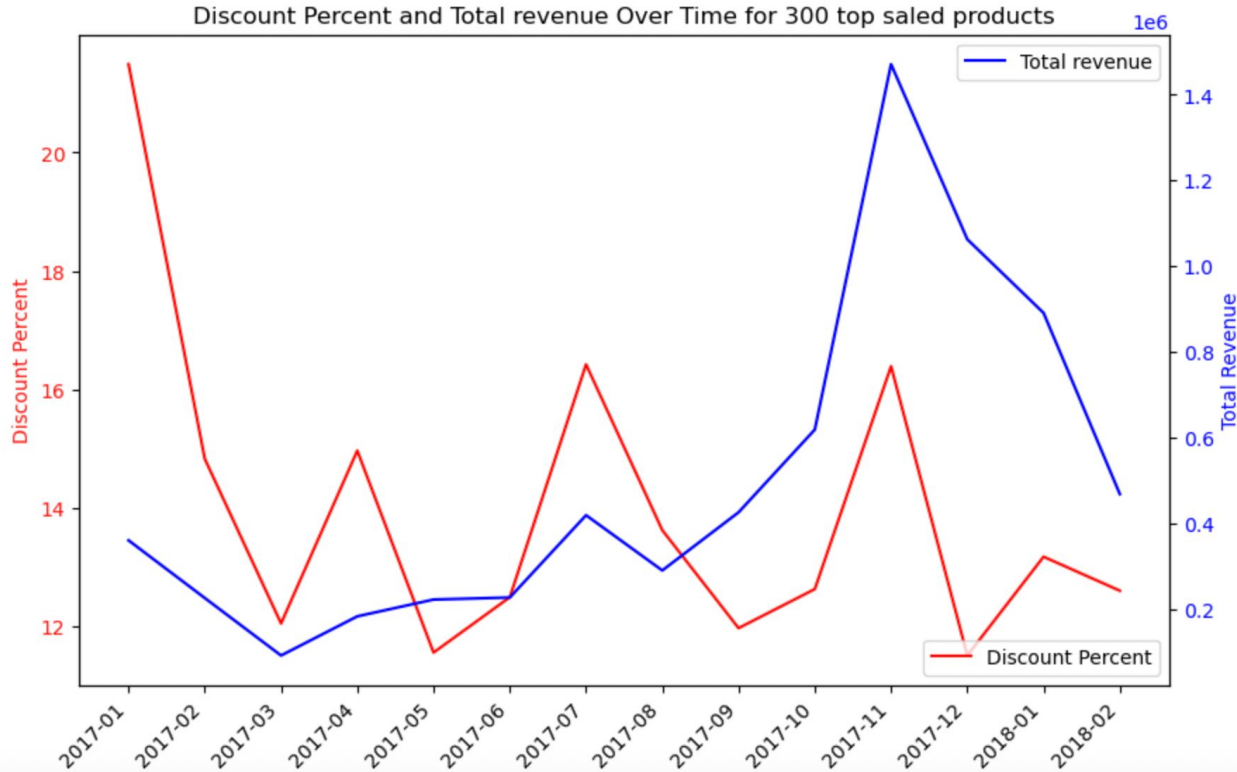
Let's follow one product

Apple iPhone 8 Plus 64GB Gold

This is the product which provided us the greatest revenue

Discount Percent and Total Revenue over Time for Apple iPhone 8 Plus 64GB Gold

300 TOP SOLD products

300 products provided us 6 952 699.57 (**61.86 %**) euro revenue from total.

Discount Percent and Total revenue Over Time for 300 top saled products

Resolution

"You can have data without information, but you cannot have information without data." – Daniel Keys Moran

The Main Answer

Offering discounts **is** beneficial

❗ There are two exceptions: discounts are not necessary during the launch period of new Apple models on the market (1-2 months) and discounts are useless when they are higher than 30% ❗

EPILOGUE

Thanks and Happy Discounts!!!

# Tips for a Better Data Analysis

1. **How could Data Collection be improved?**
- Not corrupted data
- Betters Consistency
- Less Data Cleaning & Dropping steps
- More time to analyze products in categories and discuss data

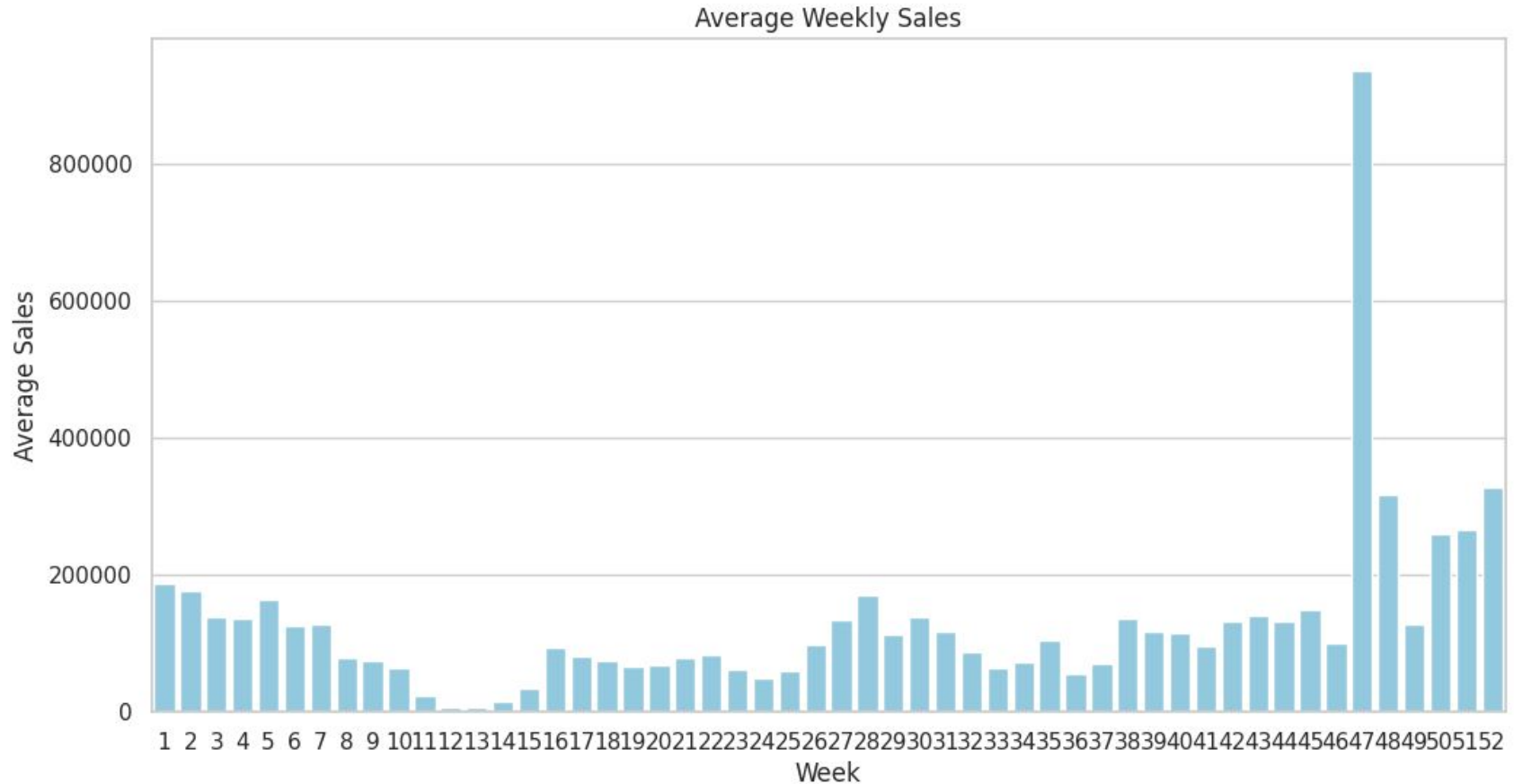2. **Do Seasonality and Special Dates (Christmas, Black Friday) affect sales?**
- Max Peak of products sold around 2017-11 & 2017-12
- 2017-12 **Christmas Festivity**
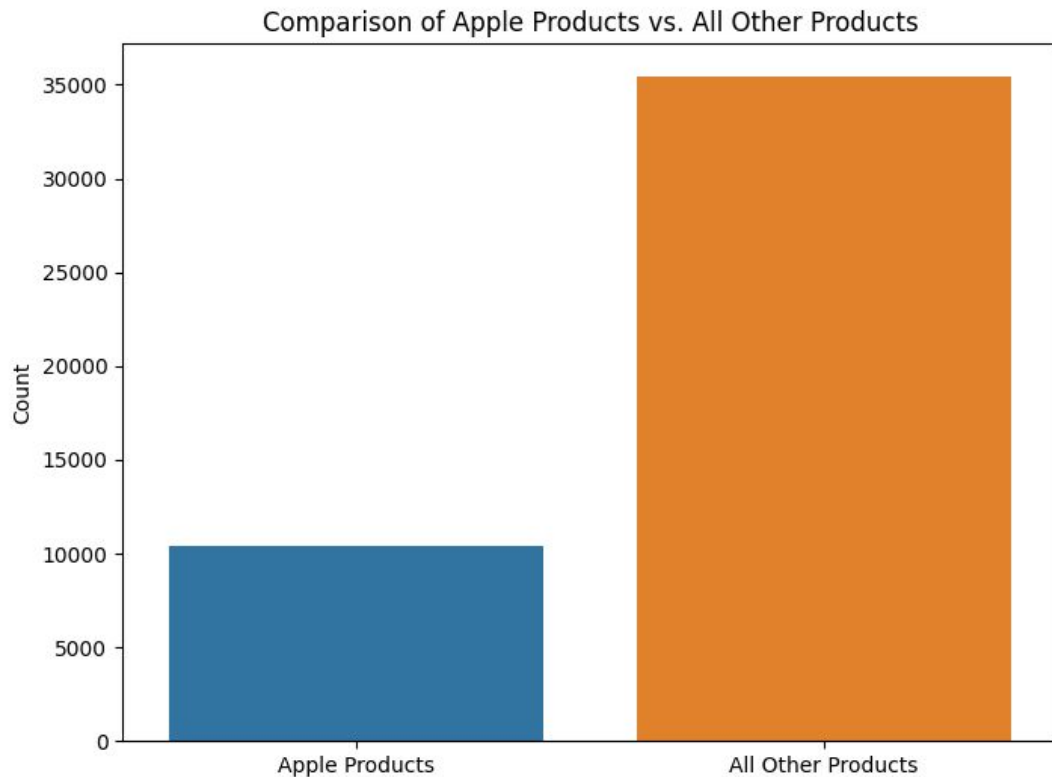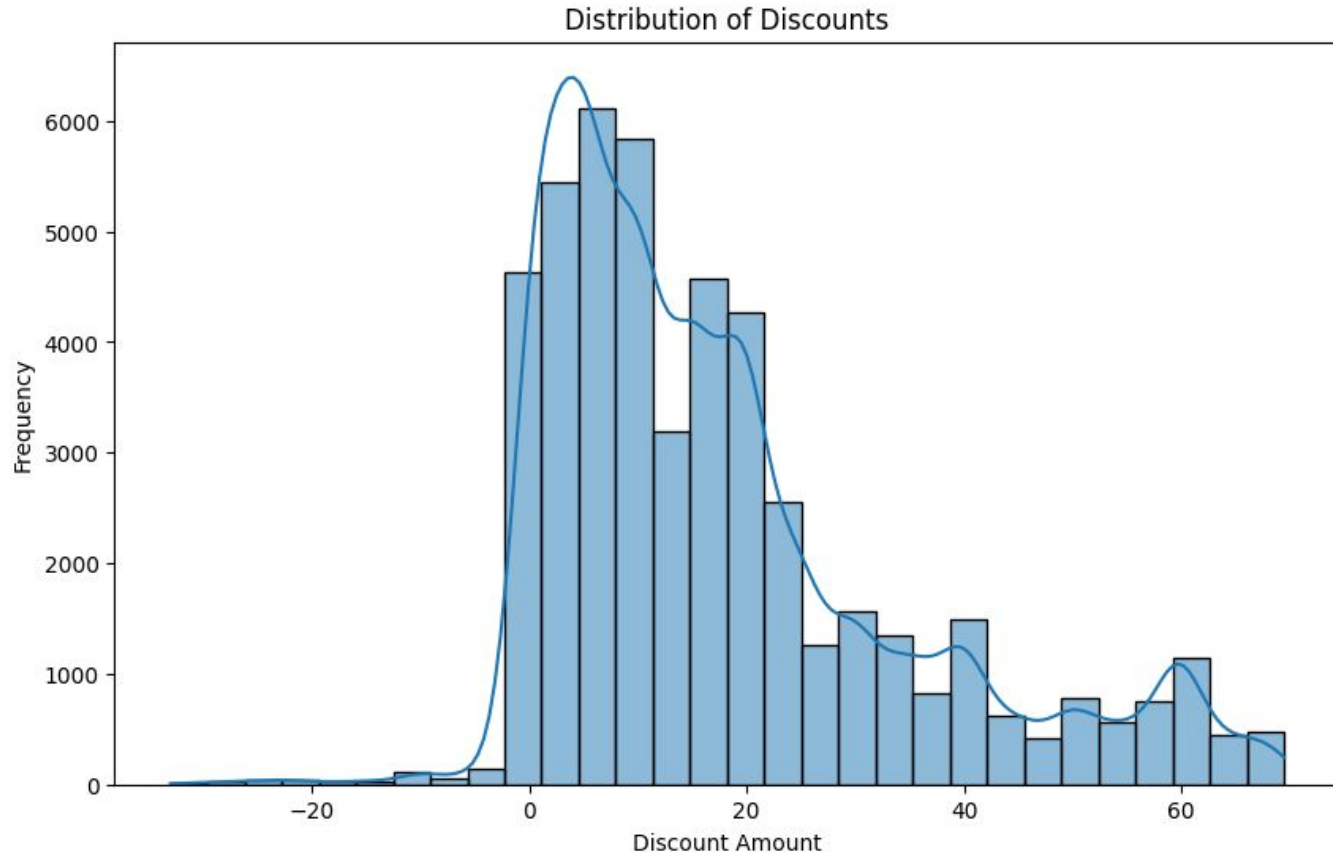- from 17th to 27th **November Black Friday**
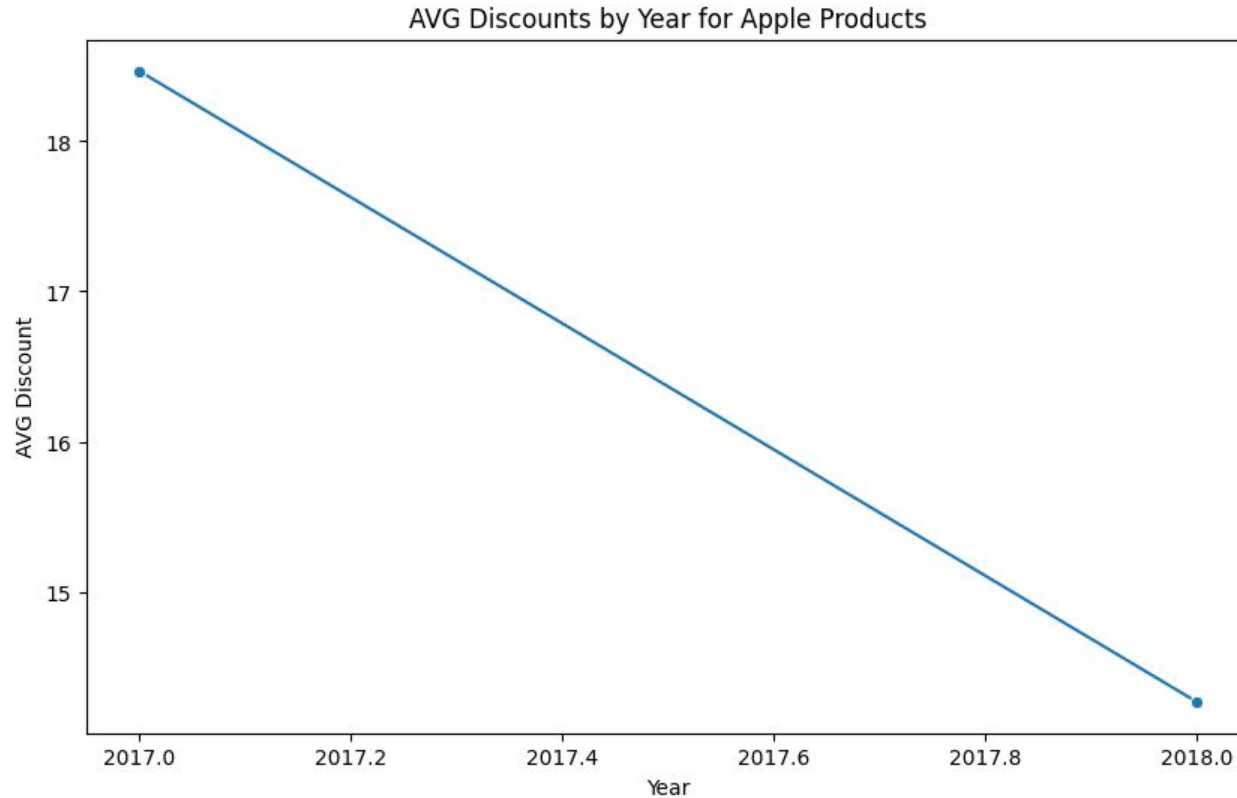
Top 20 Products Sold

AVG Weekly Sales
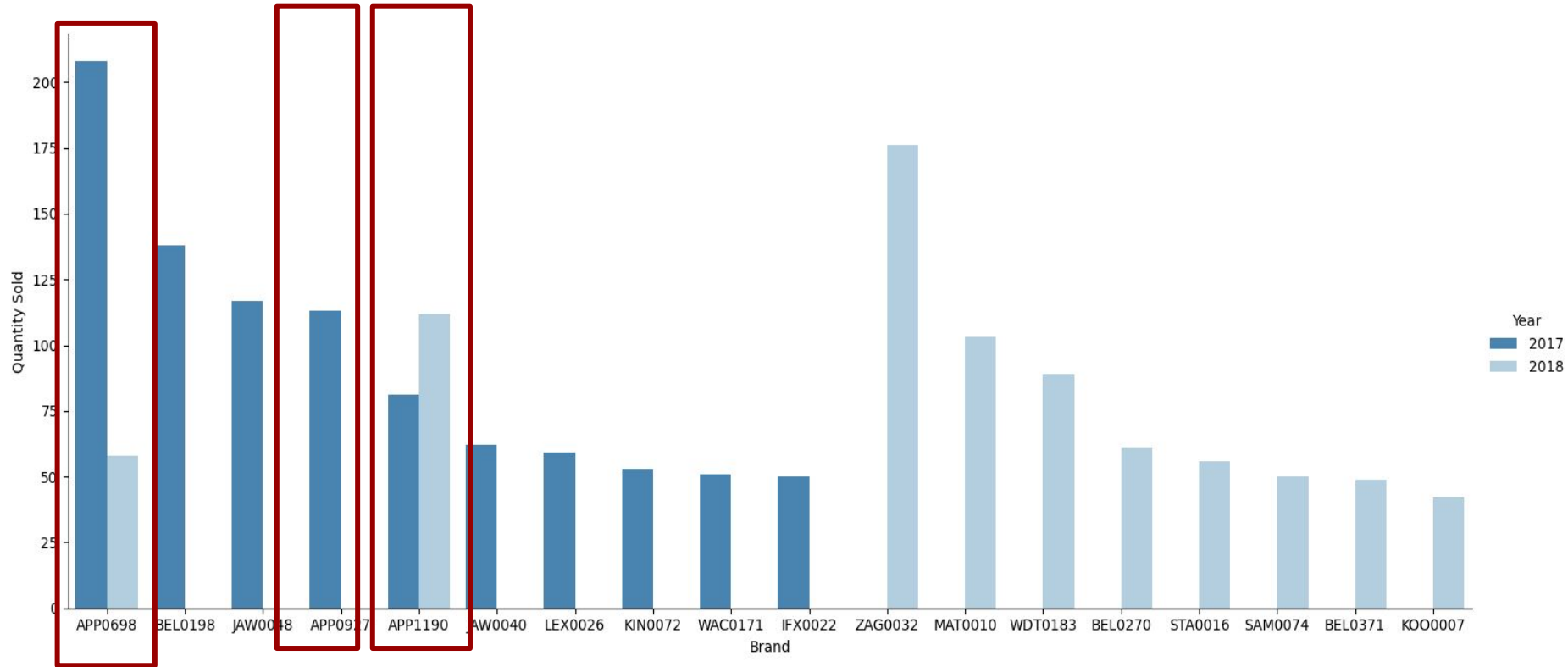
Average Weekly Sales

APPLE vs Non-Apple Products

Comparison of Apple Products vs. All Other Products

Distribution of Discounts

Distribution of Discounts

AVG Discount of Apple Products

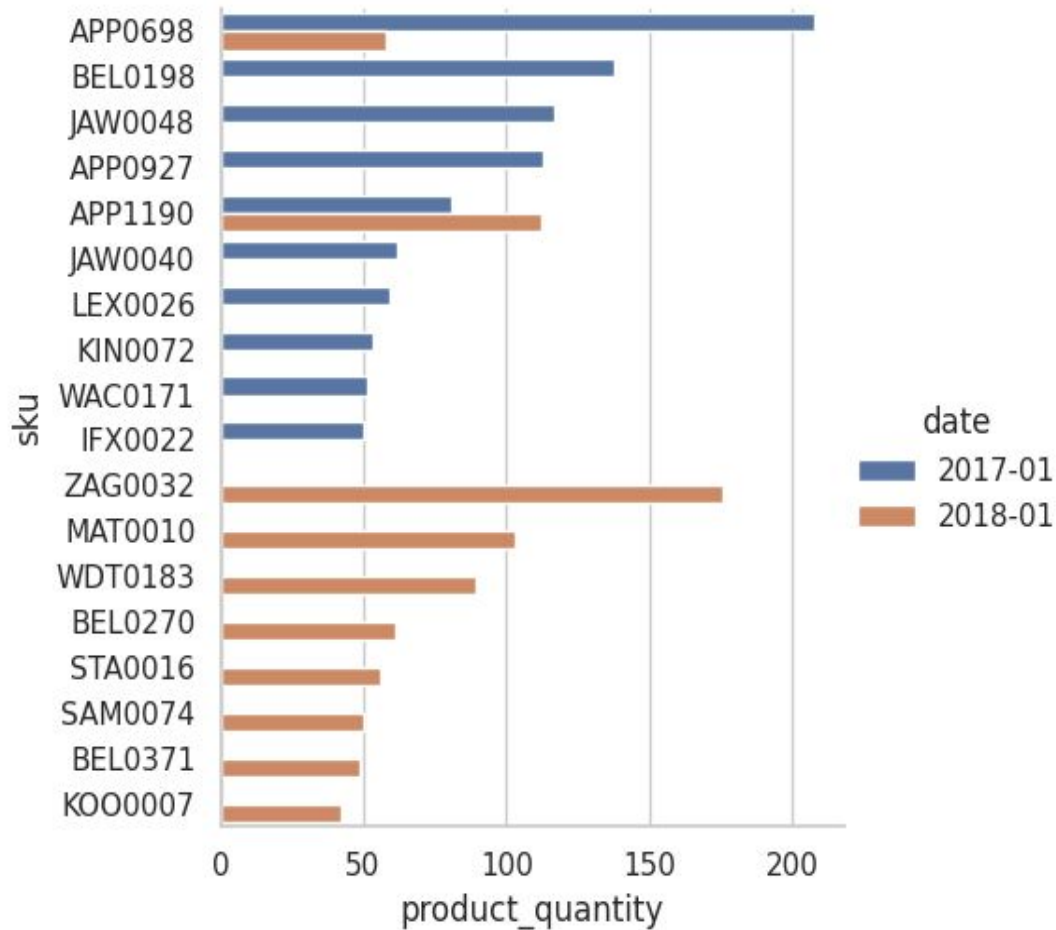AVG Discounts by Year for Apple Products

AVG Discount of Apple Products

Comparison of Average Discounts for Apple vs. Non-Apple Products
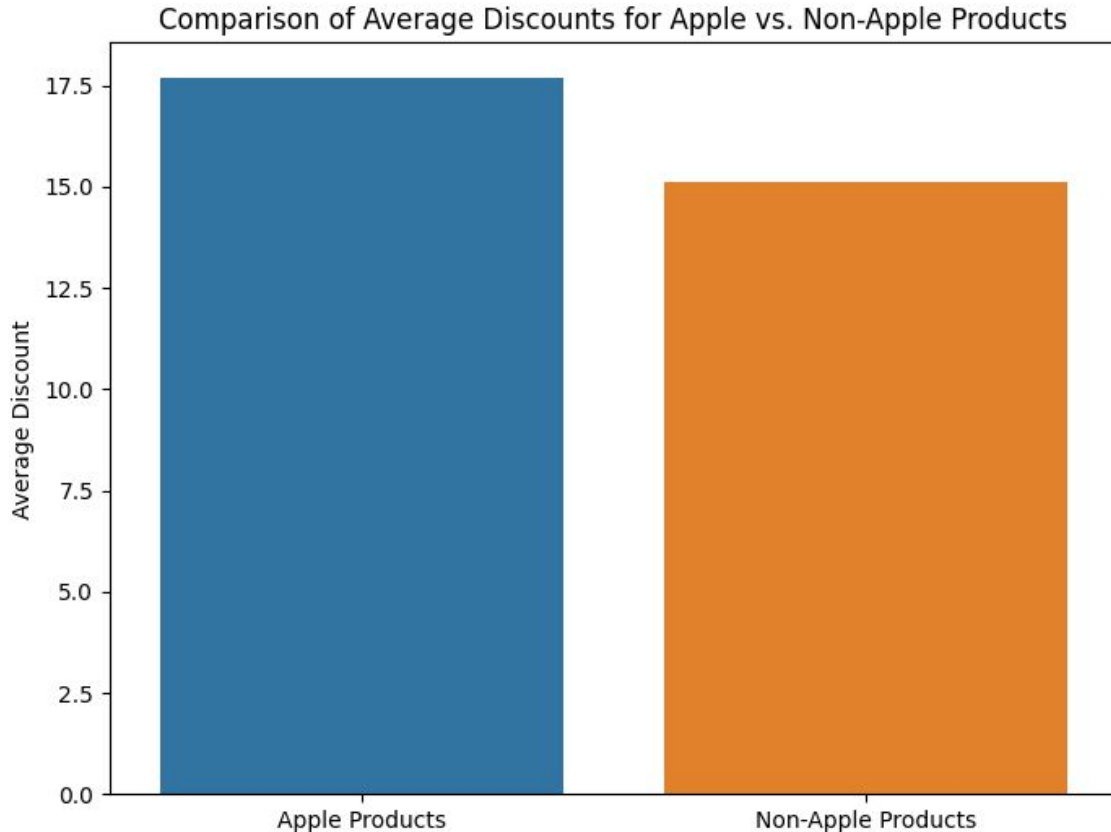
- Total Revenue Impact of Apple's Discounts: **102946.52** euro

- Total Revenue from All Products: **3002290.42** euro

- Percentage Impact of Apple's Discounts on Total **Revenue: 3.43%**
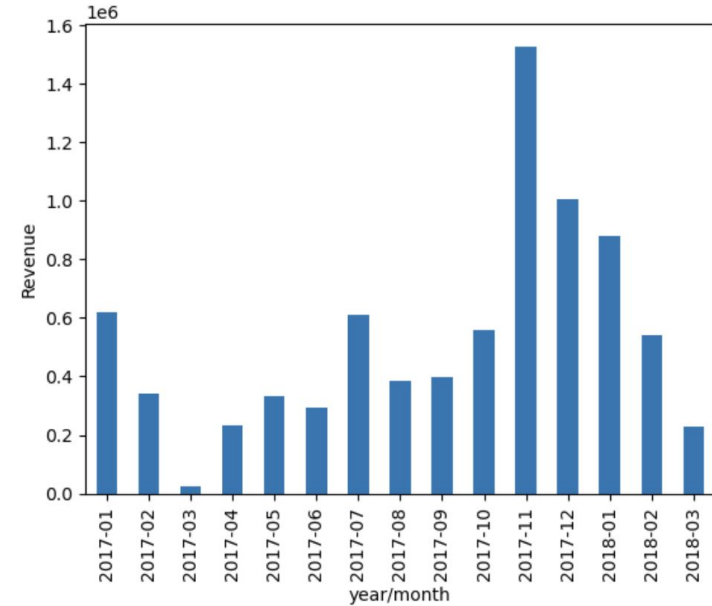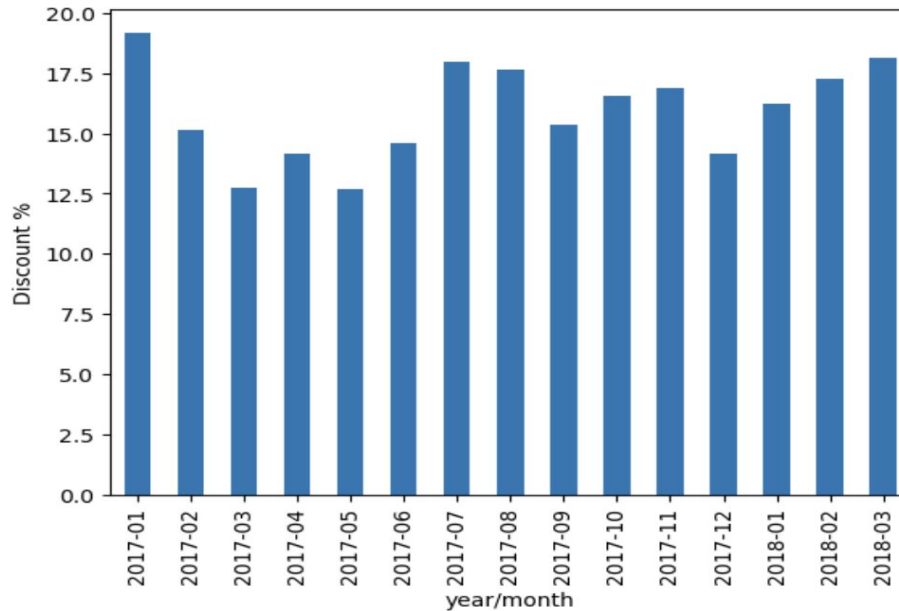
Top 20 Products Sold ...

- Total Revenue Impact of Apple's Discounts: $102 946.51

- Total Revenue from All Products: $3 002 290.42

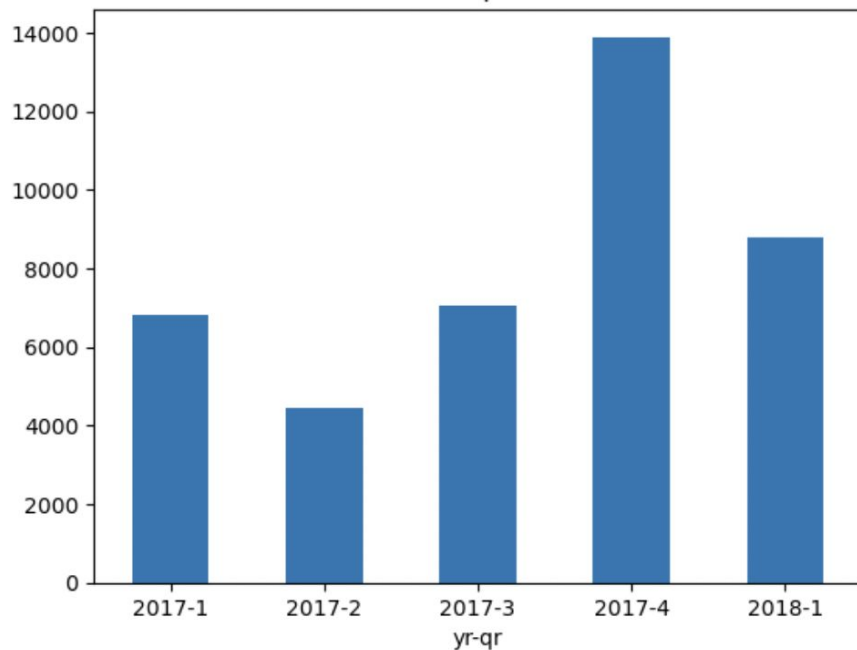- Percentage Impact of Apple's Discounts on Total Revenue: 3.43%
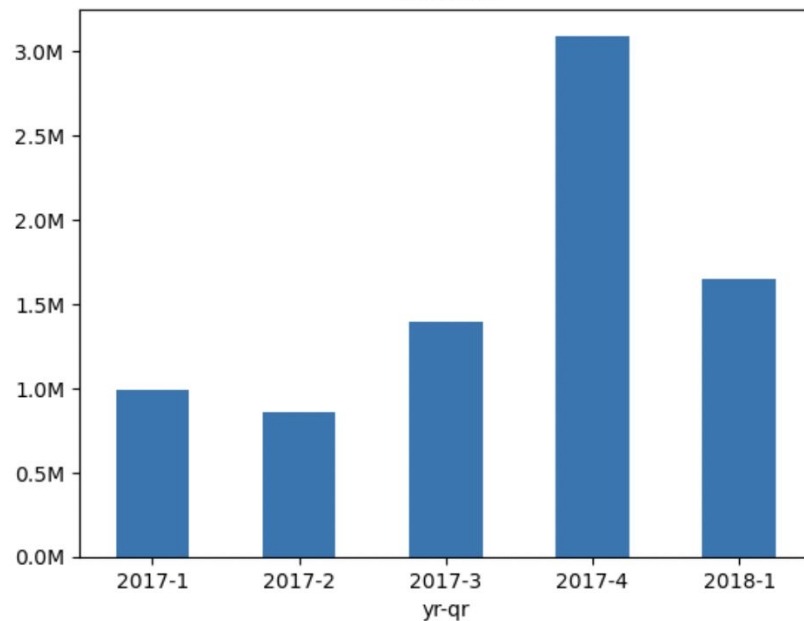
Discount percent monthly

Relief to Investors worry!

Complex & Corrupted Data

The Dataset is composed of :

1. Orders
2. Orderlines
3. Products
4. Brands