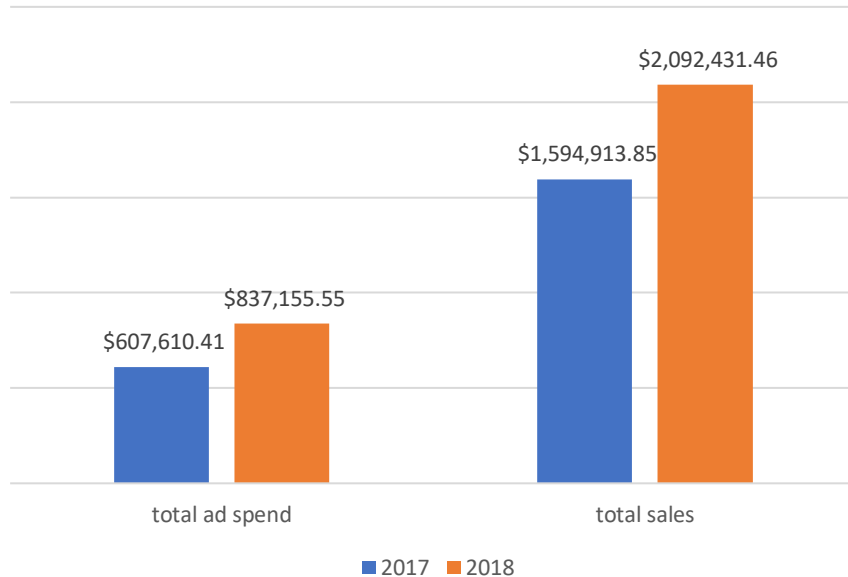# Udacity
Marketing Analytics

Nanodegree Program
Project: Craft a Report

By Pranay Shyamkuwar

Objective Results

Total Ads spend and Total sales 2017 vs 2018

$2,092,431.46

$1,594,913.85

$837,155.55

$607,610.41

total ad spend   total sales

■ 2017   ■ 2018

Year		Total ad spend	Total sales
2017	$	607,610.41	$1,594,913.85
2018	$	837,155.55	$2,092,431.46
Growth		0.38	0.31

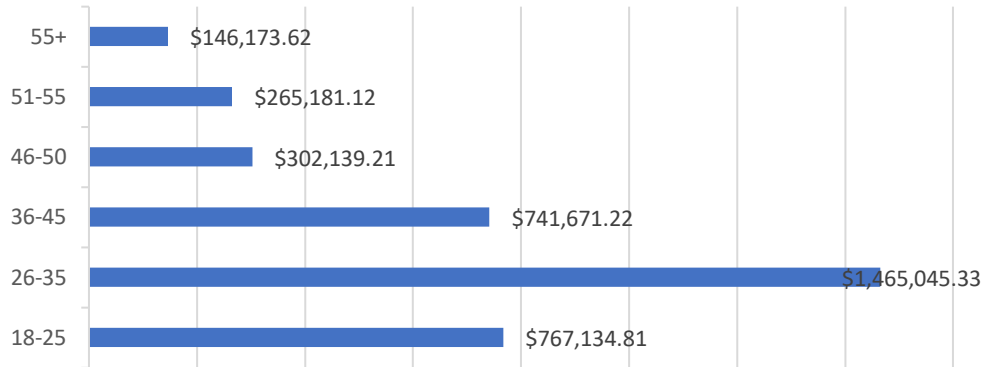**Increase total sales by 30% on Black Friday 2018 vs. Black Friday 2017.**

The goal was met as the sales has increased by 31% which is $ 497,517.61 for the year 2018.

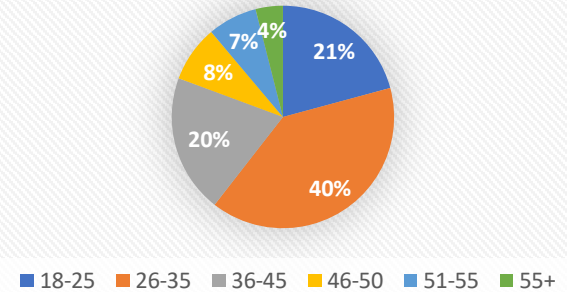**Decrease total ad spend by 30% from Black Friday 2017 to Black Friday 2018.**

The goal was not met as the total ad spend has increased by 38% which is $ 229,545.17 for the year 2018

Evaluate the Audience

Total sales amount by age range for year 2017-2018

Age Range	Sales
55+	$146,173.62
51-55	$265,181.12
46-50	$302,139.21
36-45	$741,671.22
26-35	$1,465,045.33
18-25	$767,134.81

Total sales proprotion by age range 2017-2018

- 18-25: 21%
- 26-35: 40%
- 36-45: 20%
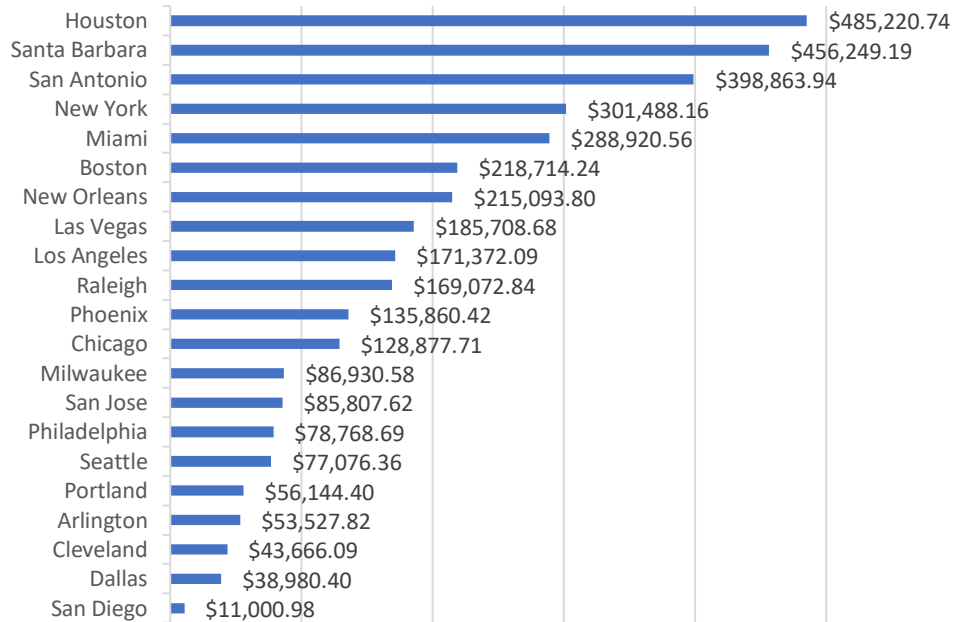- 46-50: 8%
- 51-55: 7%
- 55+: 4%

Which Age-Range generated the most sales?

The most sales generated by is the 26-35 age group which is $1,465,045.33 representing the 40% of the sales. Age group 18-25 doing fair enough bring the total profit of $ 767,134.81 equals to 21% of profit, followed by the 36-45 Age range with $741,671.22. At last 55+ above only generate total sales of 146,173.62 for the year 2017 to 2018.

Evaluate the Audience

Sales

| City	Sales
Houston	$485,220.74
Santa Barbara	$456,249.19
San Antonio	$398,863.94
New York	$301,488.16
Miami	$288,920.56
Boston	$218,714.24
New Orleans	$215,093.80
Las Vegas	$185,708.68
Los Angeles	$171,372.09
Raleigh	$169,072.84
Phoenix	$135,860.42
Chicago	$128,877.71
Milwaukee	$86,930.58
San Jose	$85,807.62
Philadelphia	$78,768.69
Seattle	$77,076.36
Portland	$56,144.40
Arlington	$53,527.82
Cleveland	$43,666.09
Dallas	$38,980.40
San Diego	$11,000.98

Which City generated the most sales?

For the 2017 and 2018 the most sales generated by the city is Houston around $ 485,220.74. followed by the Santa Barbara and San Antonio i.e. $ 456,249.19 and $ 398,863.94. And the least sales generated by the cities are San Diego and Dallas with 11,000.98 and 38,980.40

Evaluate the Marketing

Average CPA by Age group 2017-2018

Age group	CPA
55+	106.79
46-50	102.14
51-55	101.95
26-35	101.11
18-25	96.45
36-45	96.26
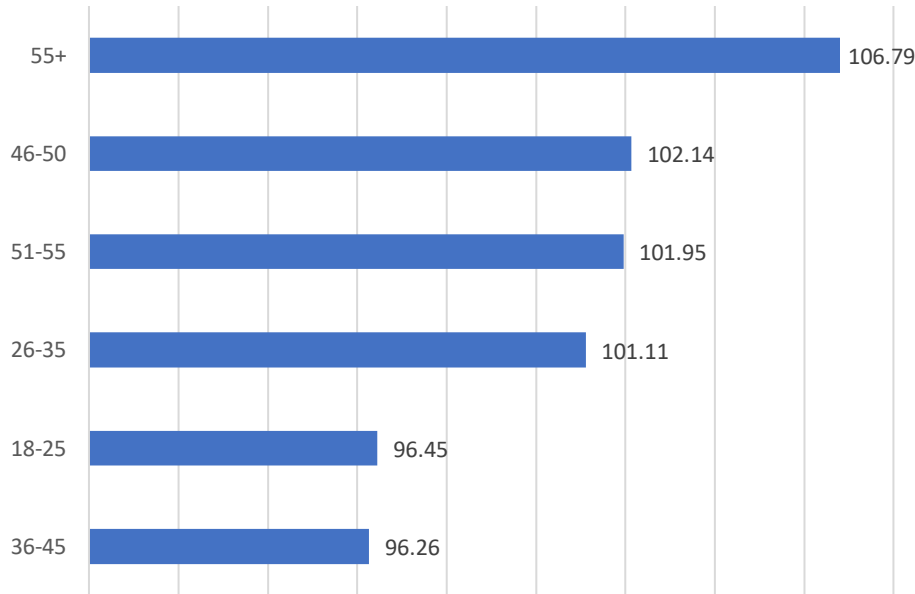
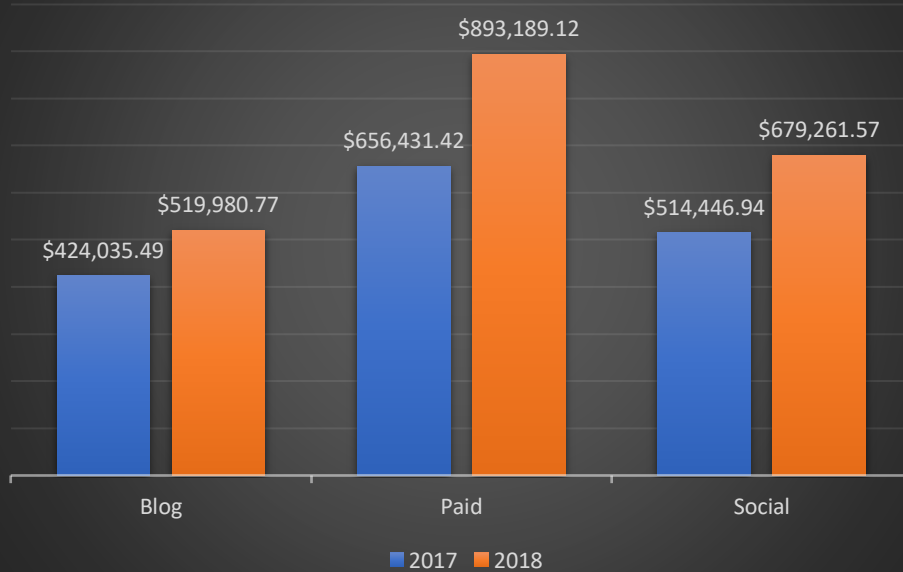|	Total sales	Total CPA	ROI
Grand Total	1549620.54	1444765.96	7.26

Was the ROI on our Paid Channel positive or negative? What was it? Which age-range had the best CPA?

The ROI is positive with 7.26%

Age range 36-45 has the best CPA of 96.26. Followed by 18-25 Age group i.e. 96.45 which is marginally close. The 55+ above has the highest CPA of 106.79.
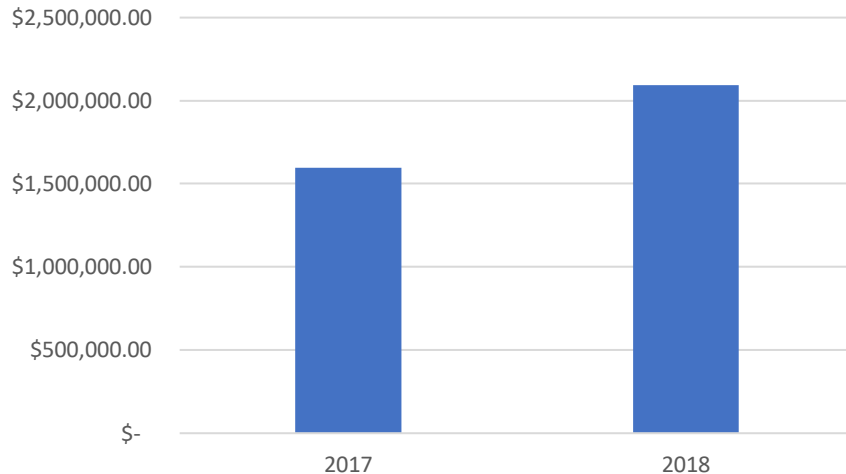
Evaluate the Marketing

Which channel was the biggest driver in sales for 2017? For 2018?

Paid channel was the biggest driver for both the year 2017 and 2018 with $ 656,431.42 and $ 893,1889.1.

Evaluate the Sales
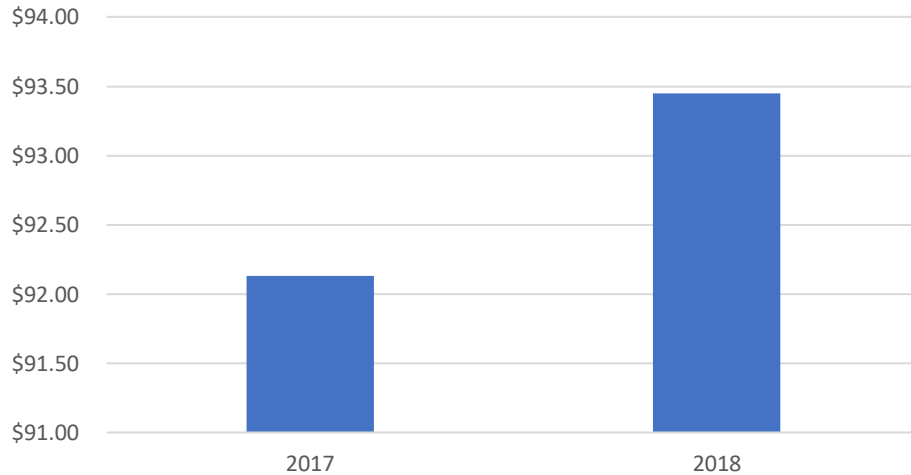
Total revenue by year 2017 and 2018

How much revenue did we generate in 2017? In 2018?

In 2018 the total revenue is generated which is $2,092,431.46 greater than the revenue generated in 2017
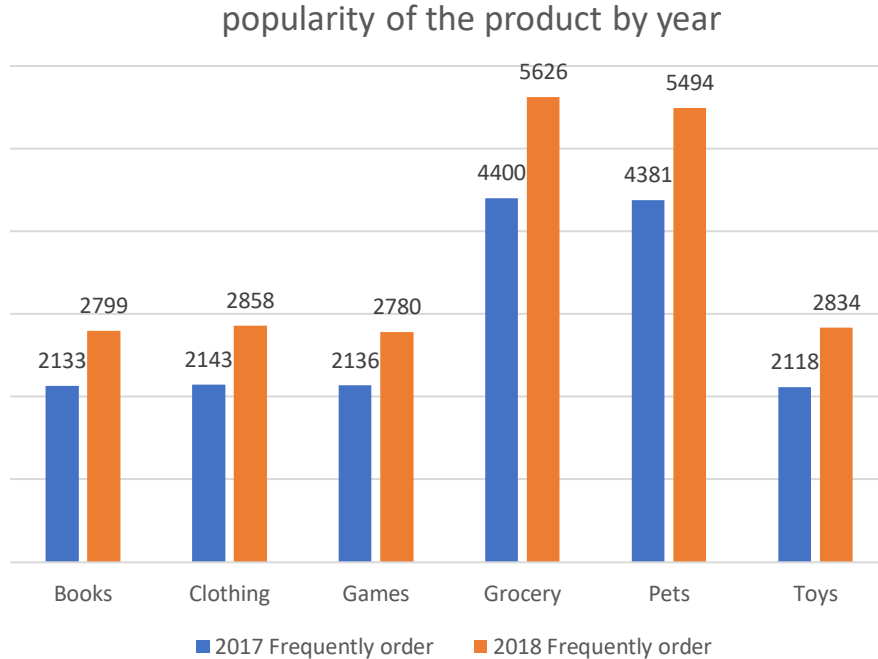
Evaluate the Sales

Average order amount

What was our average order amount in 2017 vs 2018?

The average amount in the year 2017 was $ 92.13 and for the year 2018 is 93.45

Evaluate the Product Categories
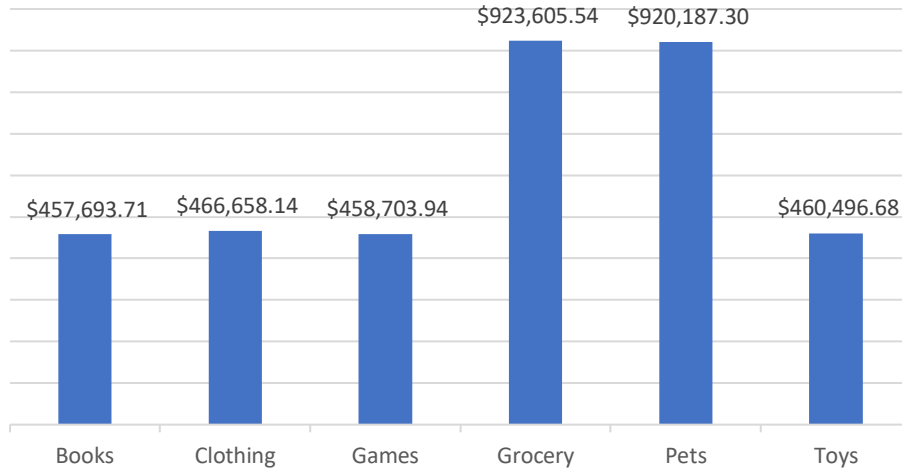
popularity of the product by year

Which product category was most popular in 2017 & 2018?

In the year 2017 and 2018 the most popular product is Grocery with 4400 and 5626 orders placed followed by the pest category with 4381 and 5626.

Evaluate the Product Categories

Sales by product category by year 2017-2018

Demonstrate sales by product category?

During the 2-year period the most sales generated is by the Grocery category with $ 923,605.54 followed by the Pets category $ 920,187.30.