

Udacity

Marketing Analytics

Nanodegree Program
Project: Craft a Report

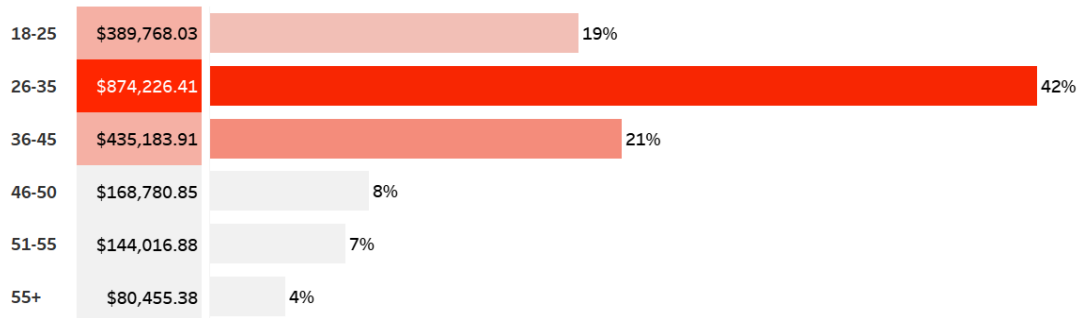
Objective Results

Objective: To assess the data and report on the performance against the objectives:

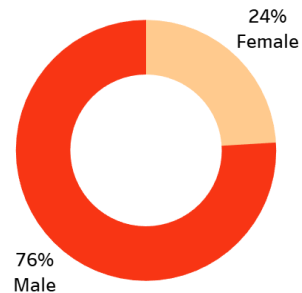
- Increase total sales by 30% on Black Friday 2018 vs. Black Friday 2017.
- Decrease total ad spend by 30% from Black Friday 2017 to Black Friday 2018.

Evaluate the Audience

Sales by Age Group in 2018



Sales by Gender

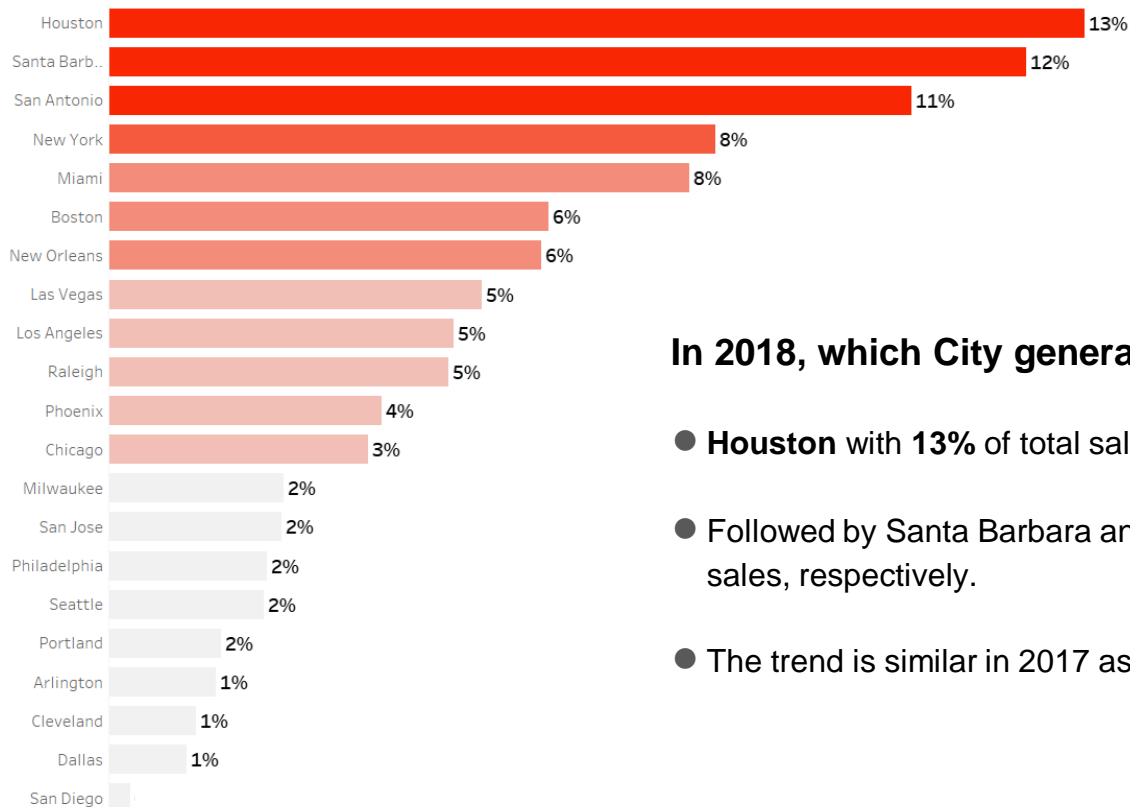


In 2018, which Age-Range generated the most sales? Who drives most sales, men or women?

Age group 26-35 generated the most sales with **42% or total Black Friday sales**. This is followed by age group 36-45 with 21% sales and age group 18-25 with 19% sales.

Overall, **Men** bring most sales with **76%** compared to Women with 24% sales. Across all age groups Men bring more sales.

Evaluate the Audience



In 2018, which City generated the most sales?

- **Houston** with **13%** of total sales generated most sales in 2018.
- Followed by Santa Barbara and San Antonio with 12% and 11% of total sales, respectively.
- The trend is similar in 2017 as well.

Evaluate the Marketing

Paid Channel:

Year	Total Sales	Total Cost	ROI
2017	\$656,431	\$607,610	8%
2018	\$893,189	\$837,156	7%

Was the ROI on our paid channels positive or negative?

- Overall in 2017-18 the ROI from paid channels were positive.
- However, there is a **1% drop in ROI** in 2018 compared to 2017.

Male(Paid Channel):

Year	Total Sales	Total Cost	ROI
2017	\$509,924	\$469,529	9%
2018	\$681,660	\$632,107	8%

How are the ROI among Men and Women?

- Among **Males**, there was **1% drop in ROI** in 2018 from 2017
- Among **Females**, there is a substantial **3% drop** in ROI in 2018 from 2017.

Female(Paid Channel):

Year	Total Sales	Total Cost	ROI
2017	\$146,507	\$138,082	6%
2018	\$211,529	\$205,048	3%

Evaluate the Marketing

Paid Channel: 2018

Year	Total Sales	Total Cost	ROI
Arlington	\$ 10,485	\$ 9,704	8%
Boston	\$ 55,553	\$ 51,794	7%
Chicago	\$ 24,159	\$ 20,942	15%
Cleveland	\$ 10,574	\$ 10,515	1%
Dallas	\$ 5,923	\$ 7,804	-24%
Houston	\$ 107,530	\$ 103,094	4%
Las Vegas	\$ 42,652	\$ 42,150	1%
Los Angeles	\$ 45,820	\$ 42,992	7%
Miami	\$ 68,997	\$ 64,036	8%
Milwaukee	\$ 29,190	\$ 25,866	13%
New Orleans	\$ 59,688	\$ 54,691	9%
New York	\$ 72,327	\$ 67,048	8%
Philadelphia	\$ 31,475	\$ 29,424	7%
Phoenix	\$ 51,982	\$ 47,131	10%
Portland	\$ 6,067	\$ 6,023	1%
Raleigh	\$ 39,666	\$ 38,185	4%
San Antonio	\$ 100,451	\$ 90,230	11%
San Diego	\$ 2,204	\$ 1,808	22%
San Jose	\$ 11,494	\$ 10,113	14%
Santa Barbara	\$ 98,222	\$ 96,597	2%
Seattle	\$ 18,732	\$ 17,007	10%

What was the ROI in various Cities?

- Overall, most of the cities we see a positive ROI in 2018.
- **Dallas** with **-24%** ROI is the only city with a Negative ROI among all markets in 2018.
- Las Vegas, Portland, Cleveland and Santa Barbara are other cities with very less ROI (less than 2%) in 2018.

All cities had a Positive ROI in 2017.

Evaluate the Marketing

What was the Average CPA in 2017? 2018?

Year	Avg CPA
2017	\$84.98
2018	\$86.31

- There was slightly over \$1 increase in Avg CPA in 2018 from 2017

Which Age range had the best CPA?

2018

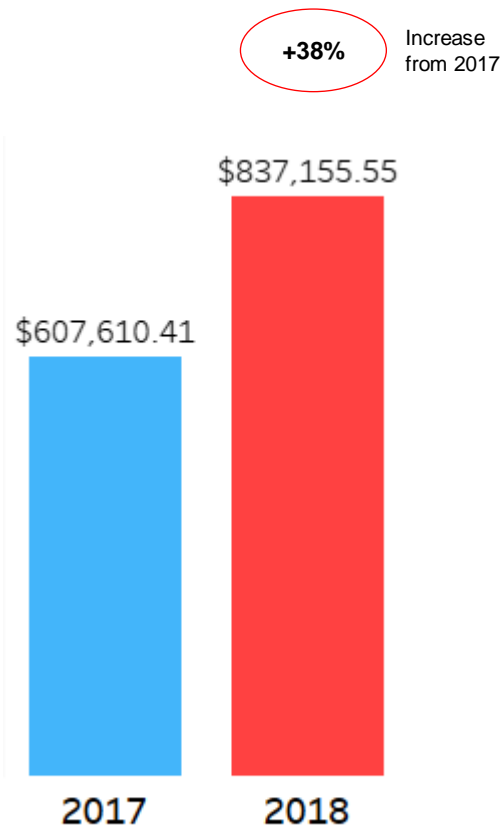


2017



- In 2018, Age group 46-50 had the best CPA with an avg of 84.42.
- However, in 2017 Age group 18-25 and 36-45 had the best CPA with an avg of 81.9 each.

Evaluate the Marketing

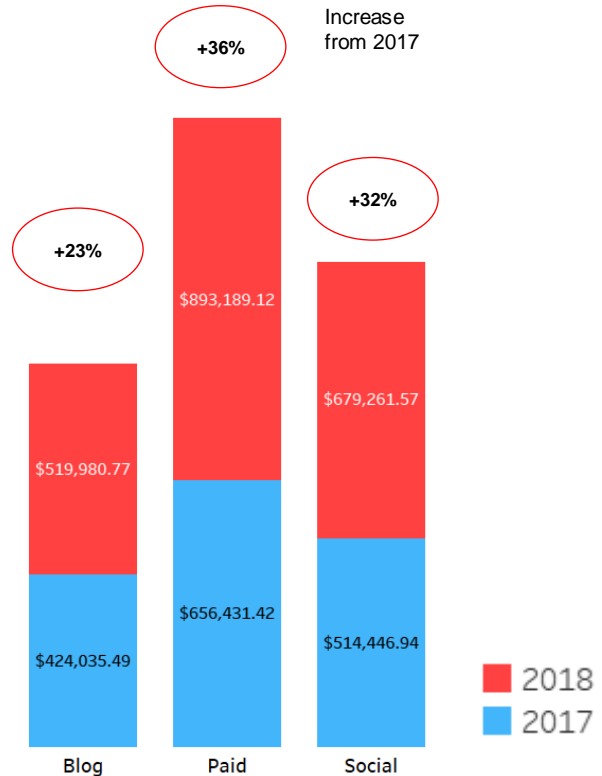


Did we meet our CPA Objective?

Goal not achieved!!

- There has been a substantial **38%** increase in ad-spend in 2018 from 2017.
- The ad-spend increased by **\$229,545** from in 2018 from 2017.
- We have not been able to achieve the 2018 goal of decreasing the ad spend by 30% from 2017 Black Friday sale.

Evaluate the Marketing



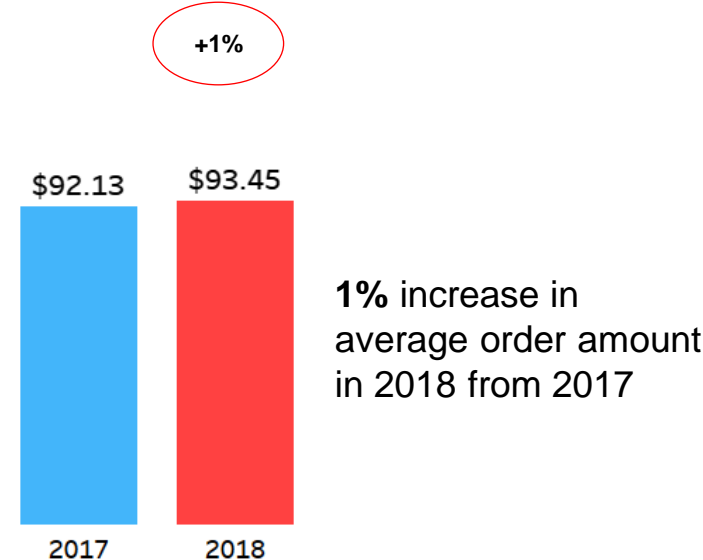
Which channel was the biggest driver of sales for 2017? For 2018?

- Paid search was the biggest driver of sales in both the years 2017 and 2018.
- **Blogs** saw a **23%** increase in sales from 2018 compared to 2017.
- **Paid Channel** saw a **36%** increase in sales in 2018 compared to 2017.
- **Social Channel** saw a **32%** increase in sales from 2018 compared to 2017.

Evaluate the Sales

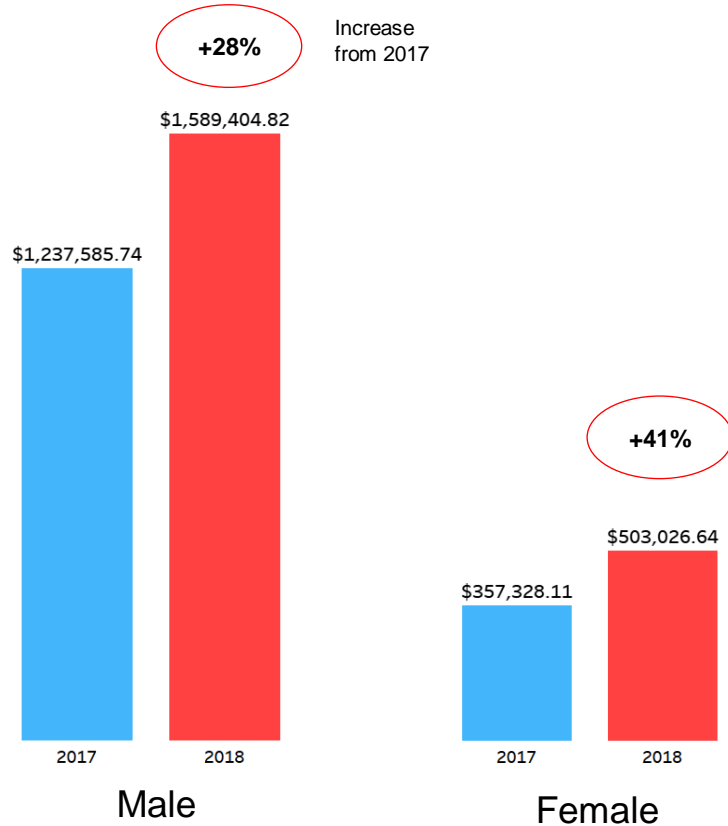
***How much revenue did we generate in 2017 vs 2018?
Did we meet our sales objective?***

***What was our average order amount in
2017 vs 2018?***



Evaluate the Sales

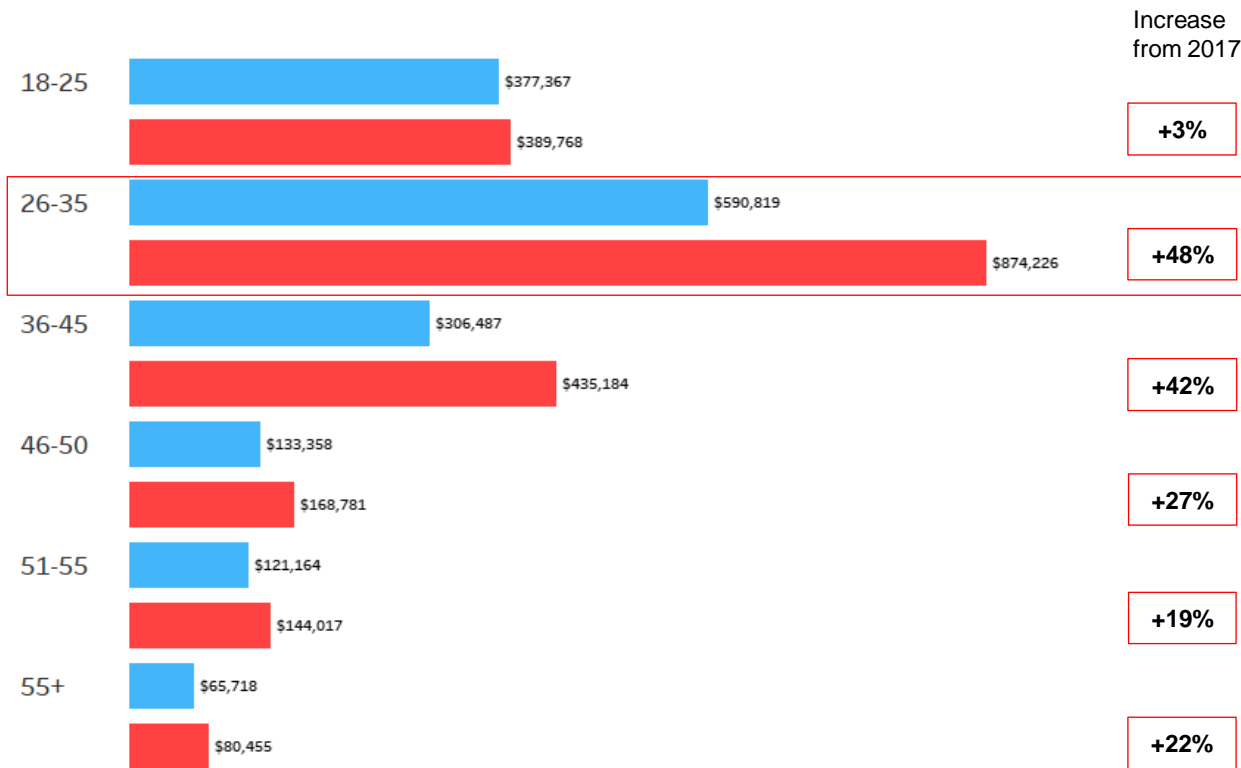
Revenue: 2017 vs 2018



Revenue generated by Gender: 2017 vs 2018?

- Overall, revenue from Men are more than that from Women.
- For **Men**, **28%** increase in revenue in 2018 from 2017.
- For **Women**, **41%** increase in revenue in 2018 from 2017.

Evaluate the Sales

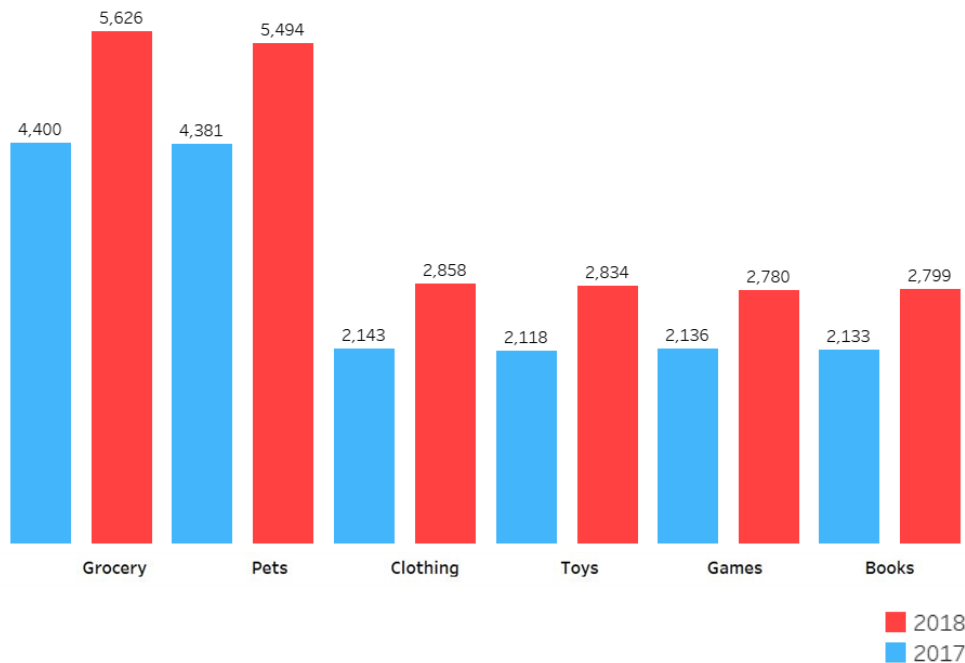


Sales by Age group: 2017 vs 2018?

- Age group **26-35** generated the highest revenue both in 2017 and 2018.
- Age group **26-35** also saw the highest **increase in revenue** of **48%** in 2018 from 2017.

Evaluate the Product Categories

No of products sold by Product category: 2017 vs 2018

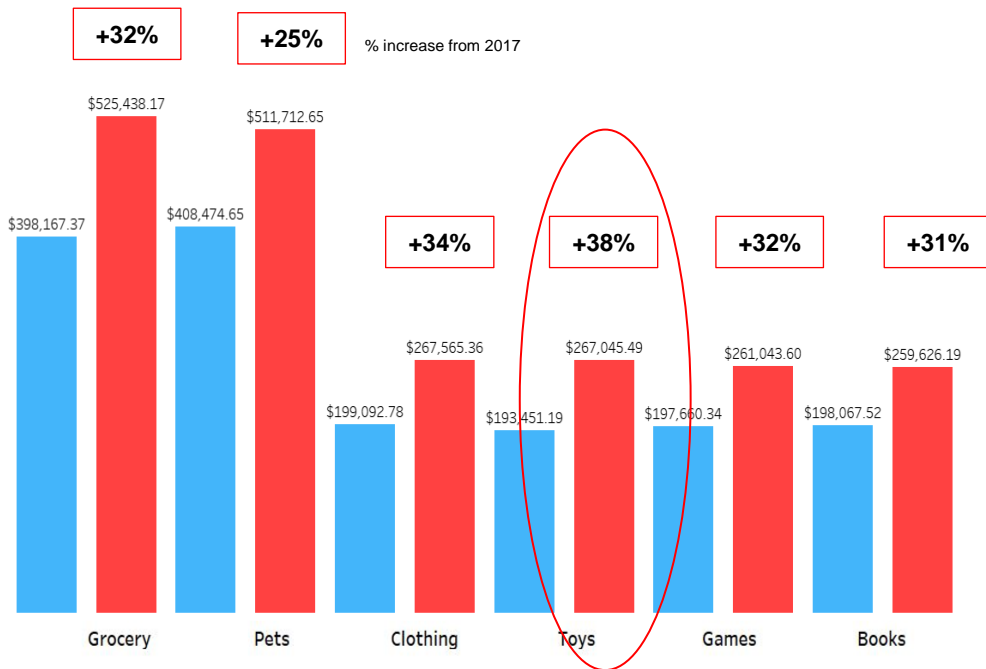


Which product category was the most popular in 2017-2018?

- **Grocery** followed by **Pets** have been the most popular in 2017-18.
- Overall, there has been a substantial increase in the number of orders in each of the Product Categories in 2018 from 2017.

Evaluate the Product Categories

Sales by Product category: 2017 vs 2018



Which product category generated most revenue in 2017-2018?

- **Grocery** followed by **Pets** have generated most revenue in both the years.
- There has been a substantial **38%** increase in revenue for **Toys** compared to that of previous year.

Everything Else

Suggestions and Recommendation:

Performed Well:

- Age 18-45 bring in 80% of Sales, of which 75% are Men.
- Cities Huston, Santa Barbara and San Antonio brought most sales.
- Cities like Chicago and San Diego got us the best ROI
- Product category Grocery and Pens were the most in demand and got us the must sales.

Everything Else

Suggestions and Recommendation:

Areas to Improve:

- Women have buying patterns and spending like Men. However, they generate only 24% of Overall revenue.
- Among Females, there is a substantial 3% drop in ROI in 2018 from 2017.
- Investigate and work on how to drive more sales from Women.
- Cities like Dallas had less sales and a -24% ROI.