Black Friday Analysis

2017 vs 2018 Performance Review

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39,702
TOTAL TRANSACTIONS

$3.69M
TOTAL REVENUE

+31.19%
REVENUE GROWTH

5,335
UNIQUE CUSTOMERS

Comprehensive Performance Analysis Across 5 Key Areas

Research Questions

Research Questions Being Evaluated:

▶ **Question 1:** Did we achieve our objective to increase total sales by 30% from Black Friday 2017 to Black Friday 2018?

▶ **Question 2:** Did we achieve our objective to decrease total ad spend by 30% from Black Friday 2017 to Black Friday 2018?

Analysis Approach: Compare year-over-year performance metrics for total sales revenue and paid marketing spend to determine if both business objectives were met.

Did We Meet Our Goals?

Objective 1: Increase Sales by 30%

Metric	2017	2018	Change
Total Sales	$1,594,913.85	$2,092,431.46	+31.19%

✓ OBJECTIVE MET

▶ Exceeded target by 1.19 percentage points
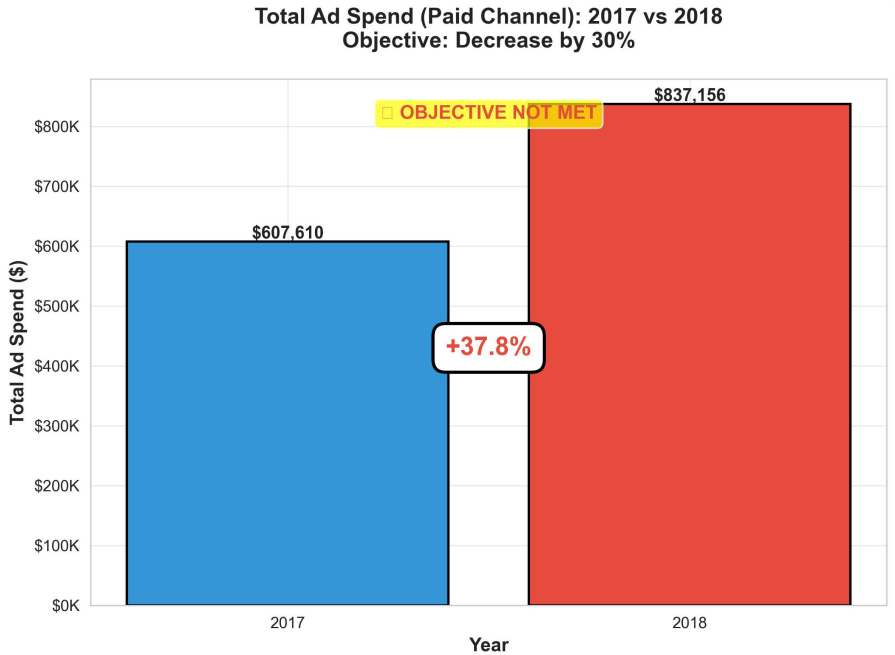
▶ Additional revenue generated: $497,517.61

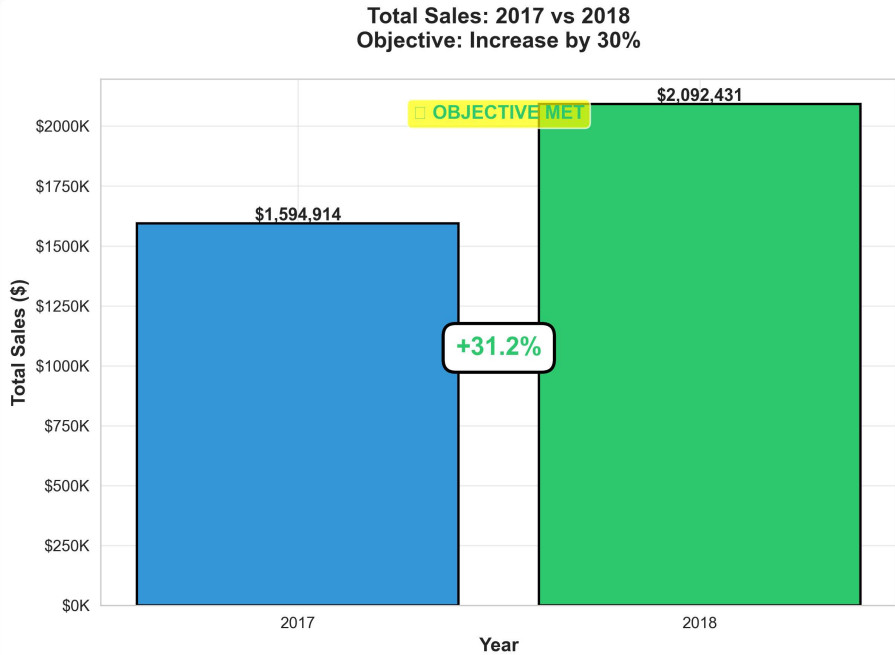## Objective 2: Decrease Ad Spend by 30%

Metric	2017	2018	Change
Total Ad Spend	$607,610.41	$837,155.55	+37.78%

✗ OBJECTIVE NOT MET

▶ Additional ad spend: $229,545.14

▶ Growth achieved but at higher cost

Visual Performance Analysis

Total Sales: 2017 vs 2018
Objective: Increase by 30%

- $2,092,431
- $1,594,914
- OBJECTIVE MET
- +31.2%

Total Ad Spend (Paid Channel): 2017 vs 2018
Objective: Decrease by 30%

- $837,156
- $607,610
- OBJECTIVE NOT MET
- +37.8%

Research Questions

Research Questions Being Evaluated:

▶ **Required Question:** How do sales differ across age demographics (18-25, 26-35, 36-45, 46-50, 51-55, 55+) between 2017 and 2018?

▶ **Optional Question 1:** How many repeat customers did we have, and did this change between 2017 and 2018?

▶ **Optional Question 2:** What was the average order volume per customer in each year?

Analysis Approach: Segment customer data by demographics and purchase behavior to identify high-value segments and retention trends.

Sales by Age Range

Required Analysis

Age Range	2017 Sales	2018 Sales	Growth
26-35	$590,818	$874,226	+47.97%
18-25	$377,366	$389,768	+3.29%
36-45	$306,487	$435,183	+41.99%
46-50	$133,358	$168,780	+26.56%
51-55	$121,164	$144,016	+18.88%
55+	$65,718	$80,455	+22.42%

Key Insight: 26-35 dominates with $1.47M total (39.7% of revenue)

Customer Loyalty Metrics

Optional Analysis

Repeat Customer Analysis

Year	One-Time	Repeat	Total	Repeat Rate
2017	395	1,909	2,304	82.9%
2018	442	2,589	3,031	**85.4%**

▶ Retention improved 2.5 percentage points

▶ Repeat customer base grew 35.6%

Average Order Volume

7.51	7.39
2017 AVG ORDERS	2018 AVG ORDERS

▶ Minimal decrease of 1.6%

▶ Consistent customer engagement maintained

Visual Audience Insights

Sales by Age Range: 2017 vs 2018

2017 / 2018

- 18-25: $377K / $390K
- 26-35: $591K / $874K
- 36-45: $306K / $435K
- 46-50: $133K / $169K
- 51-55: $121K / $144K
- 55+: $66K / $80K

Total Sales by Age Range (2017-2018 Combined) Ranked by Performance

Winner: 26-35

- 55+: $146,174
- 51-55: $265,181
- 46-50: $302,139
- 36-45: $741,671
- 18-25: $767,135
- 26-35: $1,465,045

Repeat vs One-Time Customers: 2017 vs 2018

- One-Time Customers: 395 (17.1%) / 442 (14.6%)
- Repeat Customers: 1909 (82.9%) / 2589 (85.4%)

Average Order Volume per Customer

- 2017: 7.51
- 2018: 7.39
- Change: -1.7%

Research Questions

Research Questions Being Evaluated:

▶ **Required Question 1:** Was the ROI on our Paid Channel positive or negative? What was it?

▶ **Required Question 2:** Which age range had the best CPA (Cost Per Acquisition)?

▶ **Optional Question:** Which channel was the biggest driver in sales for 2017 and 2018?

Analysis Approach: Evaluate marketing efficiency by calculating ROI for paid channels, analyzing CPA across demographics, and comparing channel performance.

ROI & CPA Analysis

Required Analysis

Paid Channel Return on Investment

Year	Revenue	Cost	ROI
2017	$656,431	$607,610	+8.03%
2018	$893,189	$837,155	+6.69%

✓ ROI POSITIVE

▶ Every $1 spent returns $1.07

▶ ROI decreased from 8.03% to 6.69%

Best CPA by Age Range

$81.87	**$84.42**
2017: 18-25 AGE RANGE	2018: 46-50 AGE RANGE

▶ 46-50 most cost-efficient in 2018

▶ 55+ highest CPA at $96.53

Channel Performance

Optional Analysis

Total Sales by Marketing Channel
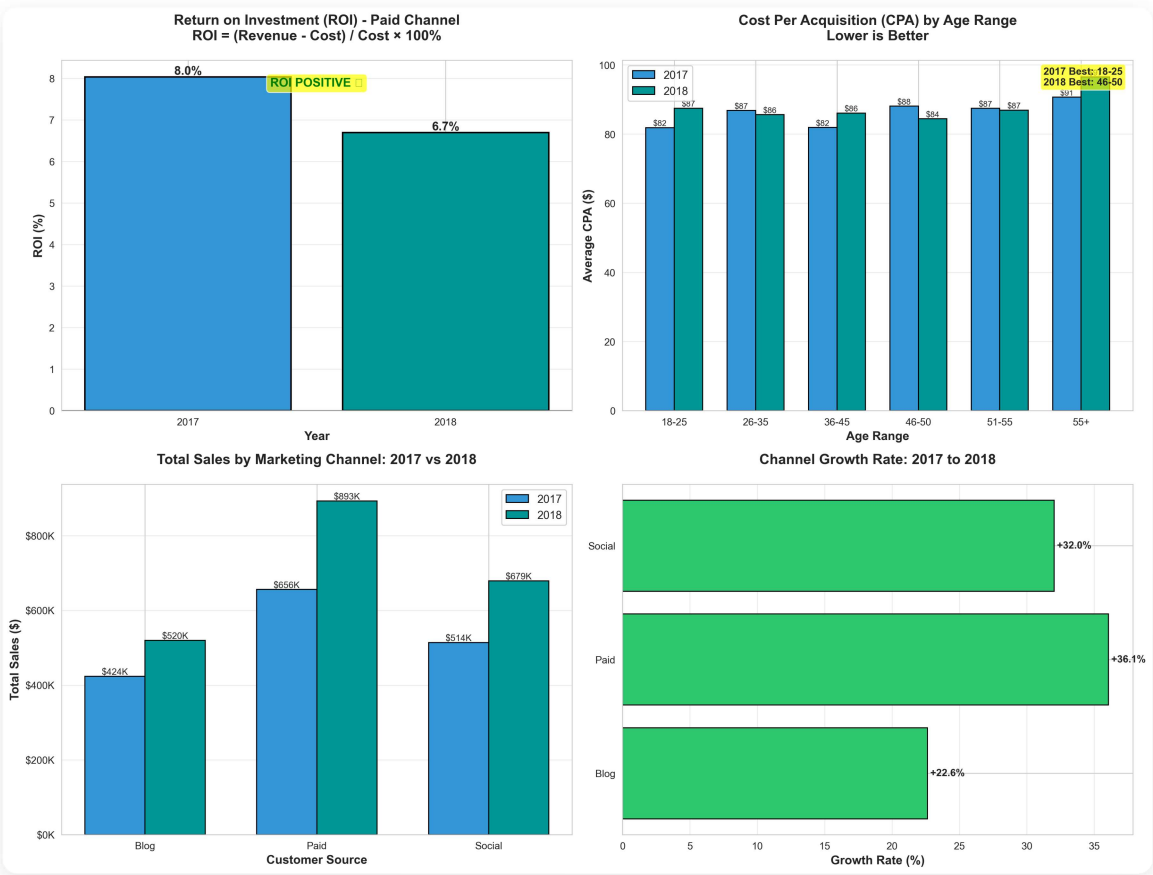
Channel	2017 Sales	2018 Sales	Growth
Paid	$656,431	$893,189	+36.1%
Social	$514,446	$679,261	+32.0%
Blog	$424,035	$519,980	+22.6%

Key Findings:

▶ Paid channel: 42.7% of 2018 sales

▶ All channels showed positive growth

▶ Diversified marketing reduces risk

▶ Paid absolute growth: +$236,757

Visual Marketing Analysis

Return on Investment (ROI) - Paid Channel
ROI = (Revenue - Cost) / Cost × 100%

Cost Per Acquisition (CPA) by Age Range
Lower is Better

Total Sales by Marketing Channel: 2017 vs 2018

Channel Growth Rate: 2017 to 2018

Research Questions

Research Questions Being Evaluated:

▶ **Required Question:** How much revenue did we generate in 2017 and in 2018?

▶ **Optional Question:** What was our average order amount in 2017 vs 2018?

Analysis Approach: Calculate total revenue and average order values to assess sales performance and identify opportunities for value optimization.

Revenue Performance

Required Analysis

Total Revenue Generated

Metric	2017	2018	Change
Total Revenue	$1,594,913	$2,092,431	**+31.19%**
Transactions	17,311	22,391	**+29.34%**

Key Insight: Revenue growth (+31.19%) outpaced transaction growth (+29.34%)

Key Takeaways

▶ Nearly $500K additional revenue

▶ 5,080 more transactions processed

▶ Higher spending per transaction

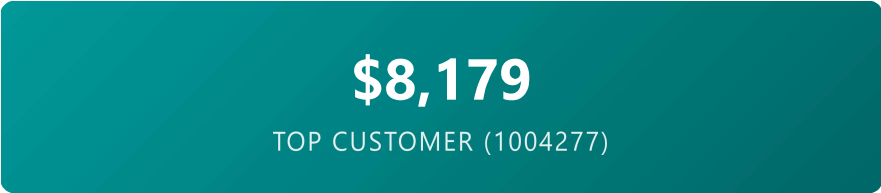▶ Growth driven by volume + value

Order Value & Top Customers

Optional Analysis

Average Order Amount

Year	Avg Order	Change
2017	$92.13	—
2018	$93.45	+1.43%

▶ Modest increase of $1.32 per order

▶ Upselling opportunity exists

Top Customer Performance

$8,179
TOP CUSTOMER (1004277)

$6,500+
TOP 10 RANGE

▶ Strong high-value customer cohort

▶ VIP loyalty program opportunity

Visual Sales Metrics
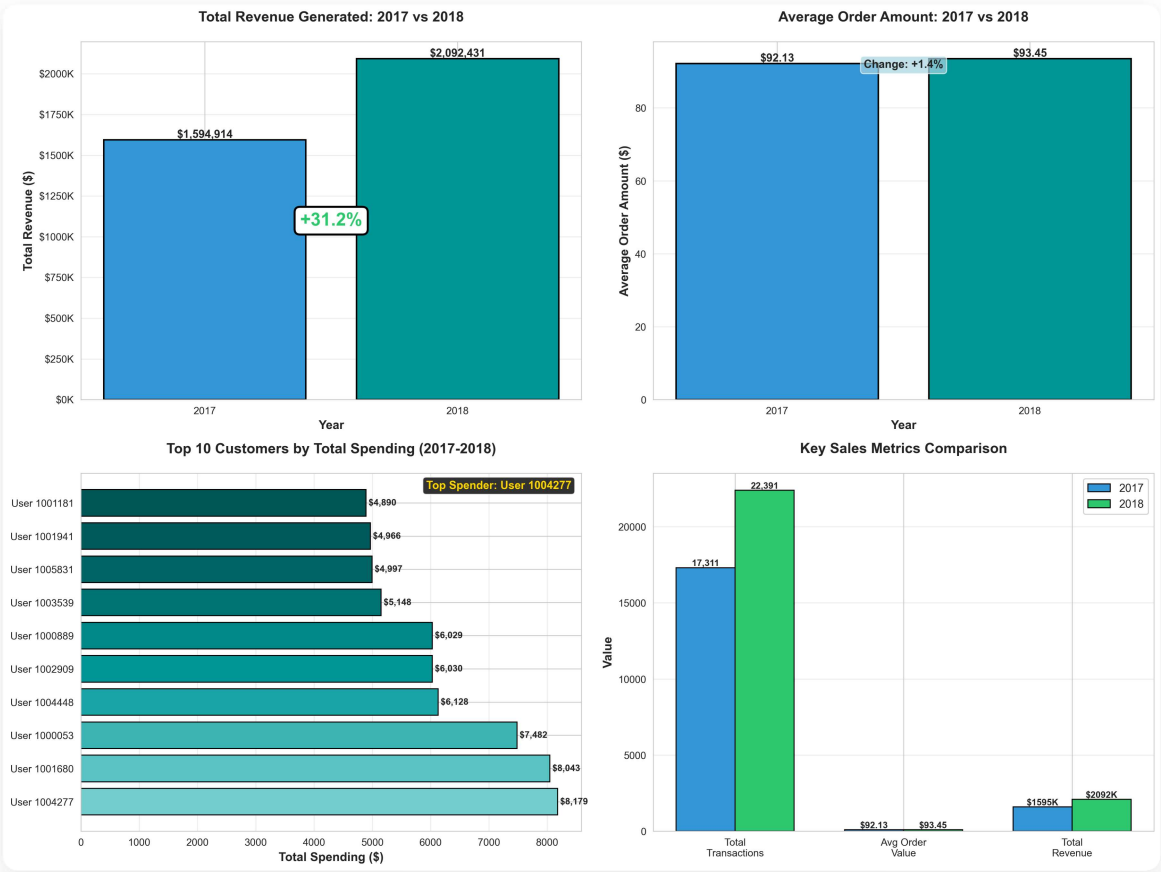
Research Questions

Research Questions Being Evaluated:

▶ **Required Question:** Which product category was most popular in 2017 and in 2018?

▶ **Optional Question 1:** Demonstrate sales by product category for both years.

▶ **Optional Question 2:** Demonstrate CPA (Cost Per Acquisition) by product category for both years.

Analysis Approach: Analyze product category performance by sales volume and marketing efficiency to identify winners and optimization opportunities.

Most Popular Categories

Required Analysis

Sales by Product Category

Category	2017	2018	Growth
Grocery	$398,167	**$525,438**	**+32.0%**
Pets	**$408,474**	$511,712	+25.3%
Clothing	$199,092	$267,565	**+34.4%**
Toys	$193,451	$267,045	**+38.0%**
Games	$197,660	$261,043	**+32.1%**
Books	$198,067	$259,626	+31.1%

Winners: 2017-Pets ($408K) **|** 2018-Grocery ($525K) **|** Fastest-Toys (+38%)
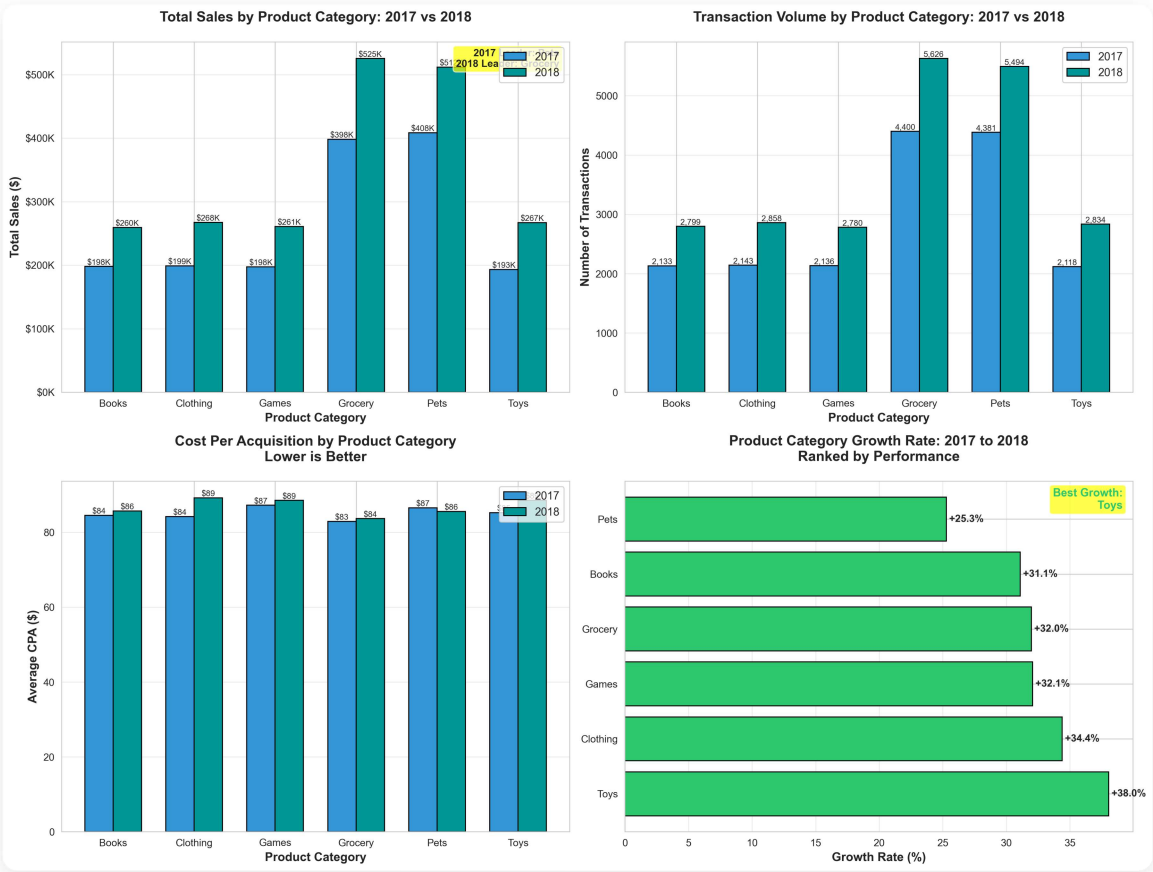
Category Efficiency Analysis

Optional Analysis: CPA

Cost Per Acquisition by Category

Category	2017 CPA	2018 CPA	Change
Grocery	$82.90	$83.64	+0.9%
Books	$84.49	$85.70	+1.4%
Clothing	$84.21	$89.18	+5.9%
Pets	$86.54	$85.57	-1.1%
Toys	$85.22	$88.55	+3.9%
Games	$87.21	$88.51	+1.5%

Insights: Grocery most popular AND efficient | Pets only CPA improvement

Visual Product Analysis

Total Sales by Product Category: 2017 vs 2018

Transaction Volume by Product Category: 2017 vs 2018

Cost Per Acquisition by Product Category
Lower is Better

Product Category Growth Rate: 2017 to 2018
Ranked by Performance

Strategic Action Plan

Marketing Efficiency

▶ Audit paid campaigns, reduce 55+ spend

▶ Increase organic channel investment

▶ Target 46-50 age (best CPA)

Audience Development

▶ Double down on 26-35 demographic

▶ Develop 18-25 acquisition strategy

▶ Launch VIP program for top spenders

Product Strategy

▶ Expand Grocery offerings

▶ Capitalize on Toys 38% growth

▶ Investigate Pets slowdown

Pricing & Value

▶ Implement dynamic pricing

▶ Create bundle deals

▶ Test minimum order thresholds