Usage Funnels with Warby Parker

Analyze Data with SQL

Sreeteja Pampati

4/30/22

Table of Contents

1. About Warby Parker

Warby Parker is a transformative lifestyle brand with a lofty objective: to offer designer eyewear at a revolutionary price while leading the way for socially conscious businesses. Founded in 2010 and named after two characters in an early Jack Kerouac journal, Warby Parker believes in creative thinking, smart design, and doing good in the world. For every pair of eyeglasses and sunglasses sold, a pair is distributed to someone in need.

2. Survey Completion

When presented with a series of questions, users will tend to give up at different points in the survey. A quiz funnel was created to analyze the number of responses for each question.

Question	Count	Percent completing the question of previous question	Percent of total that answered the question
“What are you looking for?”	500	100.00%	100.00%
“What’s your fit?”	475	95.00%	95.00%
“Which shapes do you like?”	380	80.00%	76.00%
“Which colors do you like?”	361	95.00%	72.20%
“When was your last eye exam?”	270	74.79%	54.00%

```
-- You can put your query here

SELECT question, COUNT(DISTINCT user_id)
FROM survey
GROUP BY question;
```

The largest drop-off happened at question 5. Perhaps this is due to lack of memory or because it is a very personal question.

3. Purchase Funnel

Warby Parker's purchase funnel is take the style quiz -> home try-on -> purchase the pair of glasses. An investigation to see whether or not users who get more pairs to try on at home will be more likely to make a purchase was conducted. 75% of the people took home a pair, and roughly 50% of the total population ended up buying a pair. There was a greater drop off from the home try on to purchase.

Stage	Count
1-quiz	1000
2-home_try_on	750
3-purchase	495

```
SELECT
   DISTINCT q.user_id,
   h.user_id IS NOT NULL AS 'is_home_try_on',
   h.number_of_pairs,
   p.user_id IS NOT NULL AS 'is_purchase'
FROM quiz AS 'q'
LEFT JOIN home_try_on AS 'h'
 ON q.user_id = h.user_id
LEFT JOIN purchase AS 'p'
 ON p.user_id = q.user_id
LIMIT 10;

WITH
 q AS (
 SELECT '1-quiz' AS stage, COUNT(DISTINCT user_id)
 FROM quiz
),
 h AS (
 SELECT '2-home-try-on' AS stage, COUNT(DISTINCT user_id)
 FROM home_try_on
),
 p AS (
 SELECT '3-purchase' AS stage, COUNT(DISTINCT user_id)
 FROM purchase
)
SELECT *
FROM q
UNION ALL
SELECT *
FROM h
UNION ALL
SELECT *
FROM p;
```

4. A/B Testing

An A/B test was conducted during the home try-on stage, where 50% of the users got 3 pairs to try on and the other 50% got 5 pairs to try on. We can analyze the number of home try-ons based on the number of pairs received and then how many purchased resulted from that.

The number of people who opted for the home trial was very similar between the two groups, but the people who took home 5 pairs purchased significantly more. It is clear that Warby Parker should send 5 pairs to everyone to optimize sales.

A/B Variant	Home trial	purchase
3 pairs	379	201
5 pairs	371	294

```
WITH base_table AS (
 SELECT
   DISTINCT q.user_id,
   h.user_id IS NOT NULL AS 'is_home_try_on',
   h.number_of_pairs AS 'AB_variant',
   p.user_id IS NOT NULL AS 'is_purchase'
 FROM quiz AS 'q'
 LEFT JOIN home_try_on AS 'h'
   ON q.user_id = h.user_id
 LEFT JOIN purchase AS 'p'
   ON p.user_id = q.user_id
)

SELECT
 AB_variant,
 SUM(
   CASE
     WHEN is_home_try_on = 1
       THEN 1
       ELSE 0
     END
 ) AS 'home_trial',
 SUM(
   CASE
     WHEN is_purchase = 1
       THEN 1
       ELSE 0
     END
 ) AS 'purchase'
FROM base_table
GROUP BY AB_variant
HAVING home_trial > 0;
```

5. Most Popular Fit and Shape from the Style Quiz

The most popular fit was narrow, and the most popular shape was rectangular.

Fit	Count
No preference	97
Round	180
Square	326
Rectangular	397

Fit	Count
I'm not too sure. Let's skip it.	89
Wide	198
Medium	305
Narrow	408

```
SELECT DISTINCT fit, COUNT(DISTINCT user_id)
FROM quiz
GROUP BY 1
ORDER BY 2;
```

```
SELECT DISTINCT shape, COUNT(DISTINCT user_id)
FROM quiz
GROUP BY 1
ORDER BY 2;
```

5. Most Popular Model Name

The most popular fit was the Eugene Narrow.

Fit	Count
Monocle	41
Olive	50
Lucy	86
Brady	95
Dawes	107
Eugene Narrow	116

```
SELECT DISTINCT model_name, COUNT(DISTINCT user_id)
FROM purchase
GROUP BY 1
ORDER BY 2;
```