Cool T Shirts

Analyze Marketing Attribution with SQL
Judy Ping McCormick
1st Jan 2021

Table of Contents

1. Company Familiarisation

2. User Journey

3. Optimize Campaign Budget

1. Company Familiarization

1.1 Distinct Pages on CoolTshirts Website:

distinct_page_name
1 - landing_page
2 - shopping_cart
3 - checkout
4 - purchase

```
SELECT * FROM page_visits  LIMIT 2;

SELECT DISTINCT page_name
AS distinct_page_name,  FROM page_visits;

SELECT COUNT(DISTINCT utm_campaign),
COUNT(DISTINCT utm_source)  FROM page_visits;

SELECT DISTINCT utm_campaign, utm_source  FROM page_visits;
```

page_name	timestamp	user_id	utm_campaign	utm_source
1 - landing_page	2018-01-24 03:12:16	10006	getting-to-know-cool-tshirts	nytimes
2 - shopping_cart	2018-01-24 04:04:16	10006	getting-to-know-cool-tshirts	nytimes

1.2 There are 8 campaigns from 6 sources that CoolTShirts use:

COUNT (DISTINCT utm_campaign)	COUNT (DISTINCT utm_source)
8	6

1.3 Relationship between utm_campaign and utm_source:

utm_campaign	utm_source
getting-to-know-cool-tshirts	nytimes
weekly-newsletter	email
ten-crazy-cool-tshirts-facts	buzzfeed
retargetting-campaign	email
retargetting-ad	facebook
interview-with-cool-tshirts-founder	medium
paid-search	google
cool-tshirts-search	google

2. User Journey

2. Number of first touches each campaign responsible for:

utm_campaign	utm_source	First_touches
interview-with-cool-tshirts-founder	medium	622
getting-to-know-cool-tshirts	nytimes	612
ten-crazy-cool-tshirts-facts	buzzfeed	576
cool-tshirts-search	google	169

```
WITH first_touch AS(  SELECT user_id, MIN(timestamp) AS 'first_touch_at'
 FROM page_visits   GROUP BY user_id ),

ft_attr AS (  SELECT ft.user_id, ft.first_touch_at, pv.utm_campaign, pv.utm_source
FROM first_touch ft   JOIN page_visits pv   ON ft.user_id = pv.user_id
AND   ft.first_touch_at = pv.timestamp)

SELECT ft_attr.utm_campaign, ft_attr.utm_source, COUNT(*)
FROM ft_attr
GROUP BY 1
ORDER BY 3 DESC;
```

2.2. Number of Last Touches for each campaign

utm_campaign	utm_source	Last_touches
weekly-newsletter	email	447
retargetting-ad	facebook	443
retargetting-campaign	email	245
getting-to-know-cool-tshirts	nytimes	232
ten-crazy-cool-tshirts-facts	buzzfeed	190
interview-with-cool-tshirts-founder	medium	184
paid-search	google	178
cool-tshirts-search	google	60

```
WITH last_touch AS(  SELECT user_id,
MAX(timestamp) AS 'last_touch_at'
  FROM page_visits  GROUP BY user_id),

lt_attr AS (  SELECT lt.user_id,
 lt.last_touch_at, pv.utm_campaign,
pv.utm_source

FROM last_touch lt
JOIN page_visits pv
ON lt.user_id = pv.user_id
AND   lt.last_touch_at = pv.timestamp)

SELECT lt_attr.utm_campaign,
 lt_attr.utm_source, COUNT(*)
FROM lt_attr
GROUP BY 1
ORDER BY 3 DESC;
```

2.3 User Journey − 361 visitors made purchases

page_name	No.of_visitors_made_a_purchase
4 - purchase	361

```
SELECT page_name,

COUNT(*)

AS  'No.of_visitors_made_a_purchase'

FROM page_visits

WHERE page_name = '4 - purchase';
```

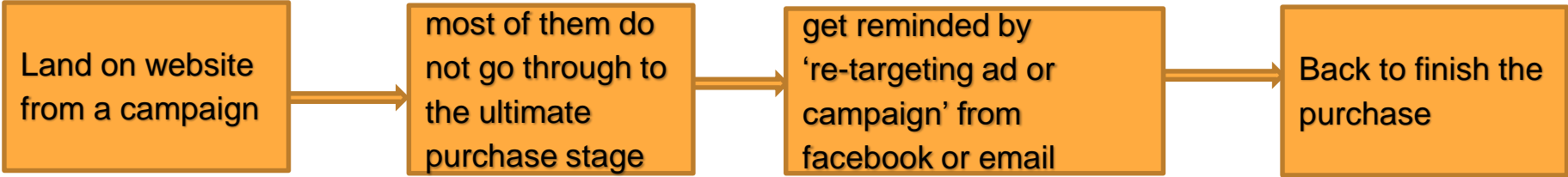# 2.4 Last touches on the 'purchase page' from each campaign:

utm_campaign	utm_source	No. of purchases from utm_campaign
weekly-newsletter	email	114
retargetting-ad	facebook	112
retargetting-campaign	email	53
paid-search	google	52
ten-crazy-cool-tshirts-facts	buzzfeed	9
getting-to-know-cool-tshirts	nytimes	9
interview-with-cool-tshirts-founder	medium	7
cool-tshirts-search	google	2

```
WITH last_touch AS(  SELECT user_id,
MAX(timestamp) AS 'last_touch_at'
  FROM page_visits
  GROUP BY user_id),
lt_attr AS (  SELECT lt.user_id,
lt.last_touch_at, pv.utm_campaign,
pv.utm_source, pv.page_name

  FROM last_touch lt
  JOIN page_visits pv
  ON lt.user_id = pv.user_id AND
  lt.last_touch_at = pv.timestamp)

SELECT lt_attr.page_name,
lt_attr.utm_campaign, lt_attr.utm_source
,
COUNT(*)  FROM lt_attr
WHERE lt_attr.page_name = '4 -
 purchase' GROUP BY 2
ORDER BY 4 DESC;
```

2.5 Typical User Journey

Land on website from a campaign	→	most of them do not go through to the ultimate purchase stage	→	get reminded by 're-targeting ad or campaign' from facebook or email	→	Back to finish the purchase

utm_campaign – First Touch	COUNT
interview-with-cool-tshirts-founder	622
getting-to-know-cool-tshirts	612
ten-crazy-cool-tshirts-facts	576
cool-tshirts-search	169

utm_campaign – result purchase	utm_source	COUNT
weekly-newsletter	email	114
retargetting-ad	facebook	112
retargetting-campaign	email	53
paid-search	google	52
ten-crazy-cool-tshirts-facts	buzzfeed	9
getting-to-know-cool-tshirts	nytimes	9
interview-with-cool-tshirts-founder	medium	7
cool-tshirts-search	google	2

3. Optimize Campaign Budget

3. Optimize Campaign Budget

CoolTShirts can re-invest in 5 campaigns, they should pick:

1. Weekly- newsletter on email, which result highest number of purchase, even though no first-touch;
2. Retargetting-ad on facebook is also very effective, which generates second highest number of purchases;
3. Retargeting-campaign on email is a good way to nudge visitors towards purchase;
4. Paid –search on google resulted in instant purchase, as it has shown no first-touch count;
5. Interview-with-cool-tshirts-founder is a great marketing campaign, which resulted in the highest first – touch, and modest purchase. It will be a good product awareness campaign for any future marketing.

utm_campaign – First Touch	COUNT
interview-with-cool-tshirts-founder	622
getting-to-know-cool-tshirts	612
ten-crazy-cool-tshirts-facts	576
cool-tshirts-search	169

utm_campaign – result purchase	utm_source	COUNT
weekly-newsletter	email	114
retargetting-ad	facebook	112
retargetting-campaign	email	53
paid-search	google	52
ten-crazy-cool-tshirts-facts	buzzfeed	9
getting-to-know-cool-tshirts	nytimes	9
interview-with-cool-tshirts-founder	medium	7
cool-tshirts-search	google	2