



Touch Attribution with CoolTShirts

Analyze Data with SQL

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Overview of the Project

CoolTShirts, as the name suggests, is a business specialized in selling all kinds of T-Shirts. The company's team recently launched a set of marketing campaigns with the intention to boost their website traffic and purchase activity.

This project will utilize the concept of touch attribution to analyze CoolTShirts' page visits data and inform the company's management team of optimize marketing campaigns and prioritize some of them based on their effectiveness.

SQL queries are used to investigate the contributions of different campaigns to the first and last touches on the company website's different pages.

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1. Marketing Campaigns and Associated Sources

The results show that CoolTShirts launched eight different marketing campaigns using six unique sources. The Google search engine was used for the search-related campaigns while social media (Facebook and BuzzFeed) was used to share advertisements and fun facts about the company. Traditional media was used to broadcast an interview with the company's founder while newspapers were used to share inside information on CoolTShirts. Lastly, email communication was used to share weekly newsletters and launch the retargeting campaign.

```
SELECT COUNT(DISTINCT utm_campaign) AS
'Number of Campaigns'
FROM page_visits;
SELECT COUNT(DISTINCT utm_source) AS
'Number of Sources'
FROM page_visits;
SELECT
utm_campaign AS 'Campaign',
utm_source AS 'Source'
FROM page_visits
GROUP BY utm_campaign;
```

Campaign	Source
Cool TShirts Search	Google
Getting to Know Cool TShirts	NY Times
Interview with CoolTShirts Founder	Medium
Paid Search	Google
Retargeting Ad	Facebook
Retargeting Campaign	Email
Ten Crazy CoolTShirts Facts	Buzzfeed
Weekly Newsletter	Email

2. CoolTShirts' Website Pages

The results show that CoolTShirts' website consists of four pages which visitors can access (shown in the table on the right). Ultimately, the goal is to maximize the number of visitors who end up in the Purchase page.

```
SELECT DISTINCT page_name AS
'Page Name'
FROM page_visits;
```

Page Name
Landing Page
Shopping Cart
Checkout
Purchase

3. Campaigns' Total First Touches

The results show that three campaigns accounted for more than 90% of the website's first touches. Interestingly, all three of these campaigns provided information on the company whether its through an interview with its founder, a blog post on crazy company-related facts, or an article about what CoolTShirts does.

In contrast, the online search campaign (using Google), was responsible for less than 10% of the website's total first touches. This observation might reflect that search engines are not showing the CoolTShirts webpage at the top of the results search page. Alternatively, it could mean that internet users do not feel intrigued by the websites or company's name thus do not feel the urge to click.

```
WITH first_touch AS (  
  SELECT user_id,  
         MIN(timestamp) as  
         first_touch_at  
  FROM page_visits  
  GROUP BY user_id)  
  
SELECT  
  pv.utm_campaign,  
  COUNT(*) AS nb_first_touches  
FROM first_touch ft  
JOIN page_visits pv  
ON ft.user_id = pv.user_id  
AND ft.first_touch_at =  
   pv.timestamp  
GROUP BY utm_campaign;
```

Campaign	Number of First Touches
Cool TShirts Search	169
Getting to Know Cool TShirts	612
Interview with CoolTShirts Founder	622
Ten Crazy CoolTShirts Facts	576
Total	1979

4. Campaigns' Total Last Touches

The results show that more of the eight marketing campaigns contributed to CoolTShirts website's last touches. Again, the case of total first touches, the search-related campaign accounted for the lowest number of last touches. Conversely, the Retargeting Ad and Weekly Newsletter contributed to almost half of the website's total last touches. Besides, the campaigns which provided information on the company (Interview with the Founder, Getting to Know CoolTShirts, and Ten Crazy CoolTShirts Facts) are responsible for a good portion of the last touches. However, these campaigns are not as effective as they were shown to be in the case of first touches. Accordingly, users are highly likely to want to know more about the company when shown information about it. Still, in many cases, this does not always trigger a purchase.

```
WITH last_touch AS (  
    SELECT user_id,  
           MAX(timestamp) as last_touch_at  
    FROM page_visits  
    GROUP BY user_id  
)  
SELECT  
    pv.utm_campaign,  
    COUNT(*) AS nb_last_touches  
FROM page_visits pv  
JOIN last_touch lt ON pv.user_id  
= lt.user_id  
AND pv.timestamp =  
    lt.last_touch_at  
GROUP BY utm_campaign;
```

Campaign	Number of Last Touches
Cool TShirts Search	60
Getting to Know Cool TShirts	232
Interview with CoolTShirts Founder	184
Paid Search	178
Retargeting Ad	443

Campaign	Number of Last Touches
Retargeting Campaign	245
Ten Crazy CoolTShirts Facts	190
Weekly Newsletter	447
Total	1979

5. Visitors Making a Purchase

The results show that 361 out of the 1979 page visitors made a purchase from CoolTShirts. This translates to less than 20% of the visitors.

```
SELECT COUNT(DISTINCT user_id) AS
'Number of Paying Customers'
FROM page_visits
WHERE page_name = '4 - purchase'
```

of Paying Customers
361

6. Campaigns' Total Last Touches on the Purchase Page

The results show that the Retargeting Ad and Weekly Newsletter contributed to the most last touches on the website's purchase page. Also, the retargeting campaign and paid search accounted for a considerable number of last touches but to a less extent. The other campaigns had minimal contribution to the purchases made through CoolTShirts' website.

Campaign	Number of Last Touches
Cool TShirts Search	2
Getting to Know Cool TShirts	9
Interview with CoolTShirts Founder	7
Paid Search	52
Retargeting Ad	112
Retargeting Campaign	53
Ten Crazy CoolTShirts Facts	9
Weekly Newsletter	114

```
WITH last_touch AS (  
  SELECT user_id,  
         MAX(timestamp) as last_touch_at  
  FROM page_visits  
  GROUP BY user_id  
)  
  
SELECT  
  pv.utm_campaign,  
  COUNT(*) AS nb_last_touches  
FROM page_visits pv  
JOIN last_touch lt ON lt.user_id =  
  pv.user_id  
AND lt.last_touch_at = pv.timestamp  
WHERE pv.page_name = '4 - purchase'  
GROUP BY utm_campaign;
```

7. Reinvesting in Specific Campaigns

Ultimately, the most successful campaigns are those that lead to the most purchases.

Accordingly, the weekly newsletter and the retargeting ad campaigns are two campaigns which must be invested in to boost the business as they are responsible for the most last touches.

Furthermore, the “Getting to Know CoolTShirts” is responsible for a significant portion of both the first and last touches. Therefore, it is a campaign worth investing in as it is attracting first-time clickers.

Similarly, the “Interview with CoolTShirts Founder” and “Ten Crazy CoolTShirts Facts” campaigns are both attracting lots of first touches and a decent number of last touches. Therefore, these 2 campaigns would be worth reinvesting in.

Key Points

1. CoolTShirts launched eight marketing campaigns on its four-page website using six different sources.
2. Campaigns providing information on CoolTShirts were responsible for the most first touches while retargeting ads and weekly newsletters accounted for the most last touches.
3. Around 20% of the website's visitors made a purchase.
4. The retargeting ads and weekly newsletters accounted for the highest numbers of last touches on the purchase page. In other words, these two campaigns are directly responsible for a considerable portion of the purchases on the website.
5. The campaigns worth reinvesting in are weekly newsletters, retargeting ads, and those providing information on the company (Interview with the Founder, Crazy Facts about CoolTShirts, and the Get to Know campaign).