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Marketing ads analysis for CoolTShirts co.

Learn SQL from Scratch

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1. Brief Introduction

Marketing campaign used in CoolTShirts co.

In the following presentation you will find a complete analysis of how effective CoolTshirts co. digital marketing campaigns are.

Currently, CoolTshirts co. has eight campaigns that run across six sources from webpages trough articles and emails.

Through these campaigns the customers are able to see the company's ads and purchase their products in a very simple way. This process is known as user journey.

Over a series of examples, we will analyze and find out different ways on how CoolTShirts Co. can improve their ads campaigns.

2. Different types of ad campaigns.

Ad campaigns and sources

They have eight campaigns that run across six sources. What they have in common?

- They advertise their products on multiples platforms used by most of the customers like emails, news sites, social media websites and search engine paid ads.
- They are targeting users trough popular websites and services to persuade their customers and increase the possibilities of purchase the advertising product.

Ad campaigns and sources

Ad Campaigns	Sources
Getting to know cool t-shirts	New York times
Interview with cool t-shirts founder	Medium
Paid search	Google
Cool t-shirts search	Google
Retargeting ad	Facebook
Weekly newsletter	email
Retargeting campaign	email
Ten crazy cool t-shirts facts	Buzzfeed

Ad campaigns and sources

Queries used to get all the different campaigns and sources for CoolTShirt co.

utm-campaign	utm_source
Getting to know cool t-shirts	New York times
Interview with cool t-shirts founder	Medium
Paid search	Google
Cool t-shirts search	Google
Retargeting ad	Facebook
Weekly newsletter	email
Retargeting campaign	email
Ten crazy cool t-shirts facts	Buzzfeed

```
--number of distinct campaigns:

select
  count (distinct(utm_campaign)) as distinct_campaings
from
  page_visits;


--number of distinct sources:

select
  count (distinct(utm_source)) as distinct_sources
from
  page_visits;


--relation between campaign and source:

select
  distinct utm_campaign as campaigns,
  utm_source as sources
from
  page_visits
order by
  sources desc;
```

3.What is the user journey?

What is the user journey?

User Journey consists on the steps a user executes when is purchasing the ad products.

This process begins when the user clicks on the ad shown in the source, which leads the user to the **landing page**.

From this page the customer proceeds to the following pages, like the **shopping cart**, **checkout** and **purchase** in order to complete the user journey.

User Journey: First touch and Last touch

- The first time the customer interacts with the ad on the source is called the **first touch**.
- Some customers that don’t complete the entire user journey may interact again with the product trough another source and this is called the **last touch**.
- These metrics are important because with them we can analyze if the ads and the sources combined have the expected impact over the customers decisions whether or not they finish with the purchase process.

User Journey: Levels of user interaction with the product

- The result of this query shows the different pages that are part of the *CoolTShirts* website.
- Once the user interacts with one of the ad campaigns, the user will immediately land on the explore products page (landing_page). This is not the case of some retargeting ad campaigns in which first interaction with the client will redirect the user directly to an other of the pages. For example, a client that had already add a product in the shopping cart, interacts with the ad it takes him to the shopping cart.

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

```
SELECT
  distinct page_name as WebSite_Pages
FROM
  page_visits
ORDER by
  1 ASC;
```

3.How can CoolTShirts co. Can improve their budget?

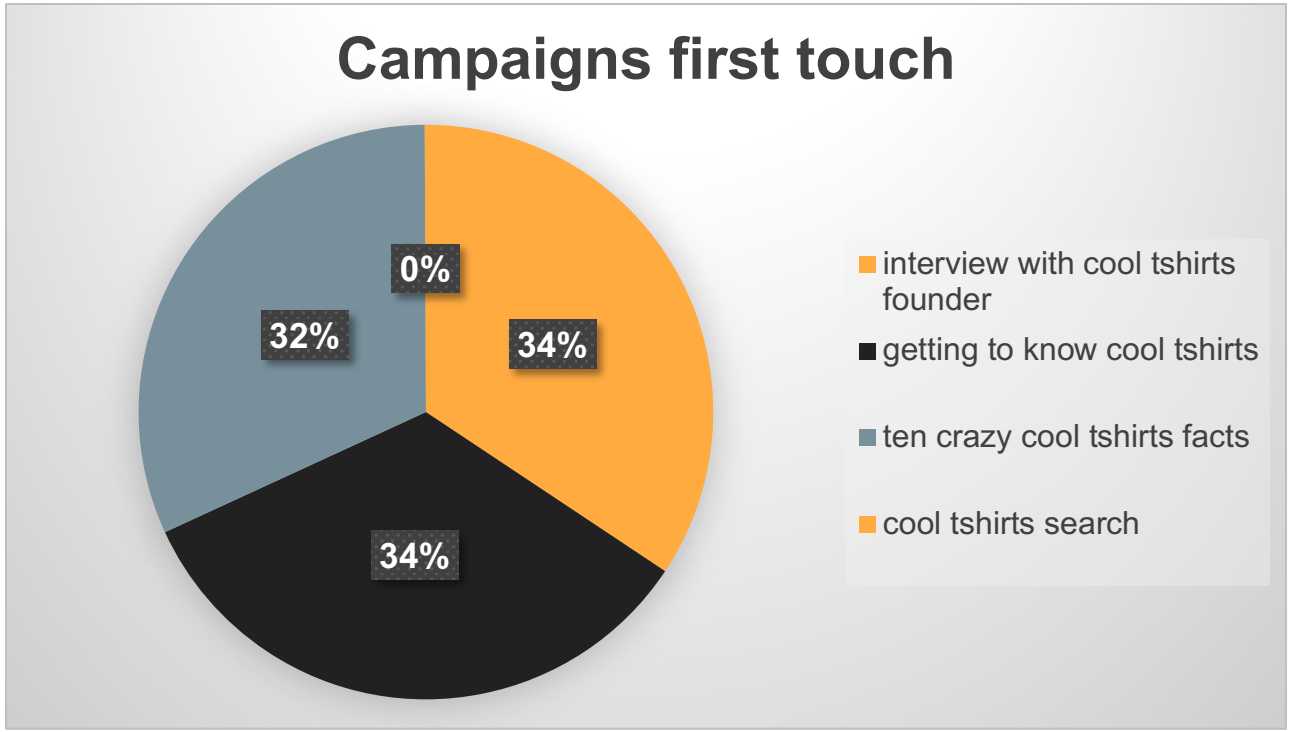
Total First touches for each campaign

- The result of this query shows the number of first touches each campaign is responsible for.

Campaign_Name	Number_of_FIRST_Touches
interview-with-cool-tshirts-founder	622
getting-to-know-cool-tshirts	612
ten-crazy-cool-tshirts-facts	576
cool-tshirts-search	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_source,
    pv.utm_campaign
  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 as Campaign_Name,
  COUNT(distinct(ft_attr.user_id)) as Number_of_FIRST_Touches
FROM
  ft_attr
GROUP BY
  ft_attr.utm_campaign
ORDER BY
  Number_of_FIRST_Touches DESC;
```

Effectiveness of each campaign



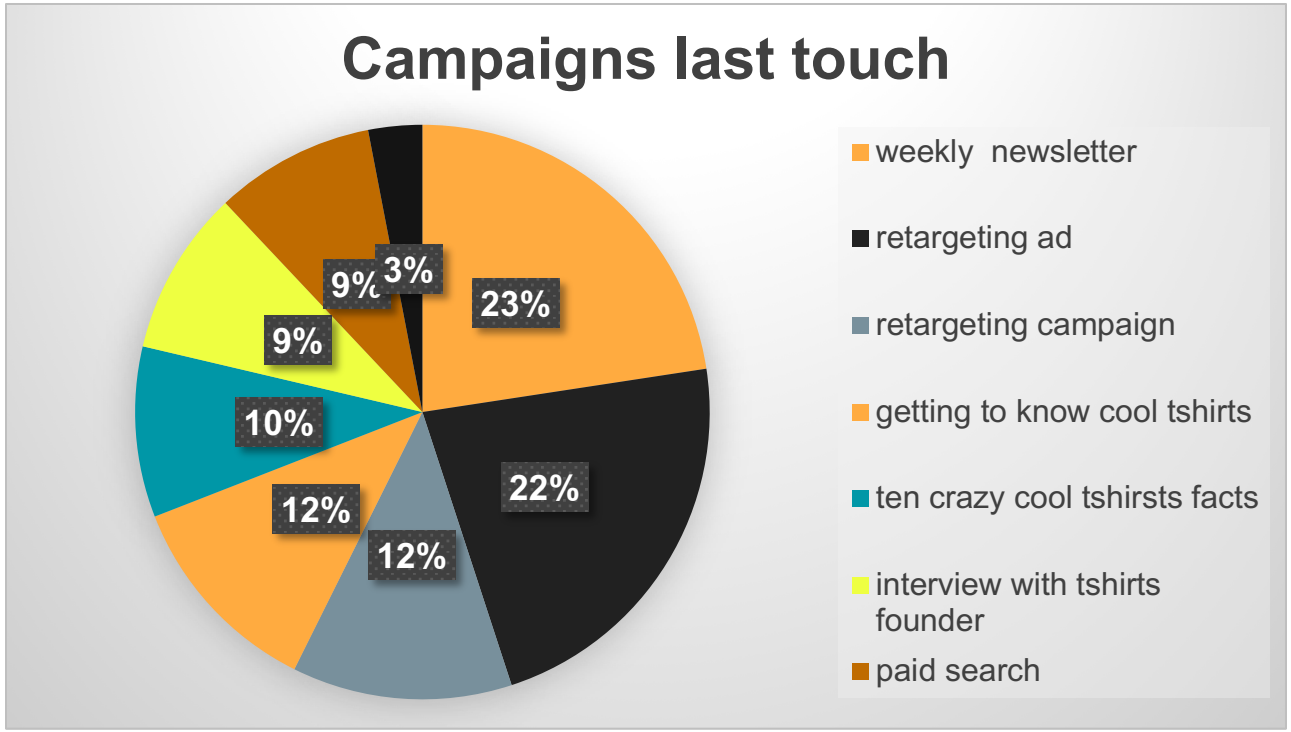
Total Last touches for each campaign

- The result of this query shows the number of last touches each campaign is responsible for.

Campaign_Name	Number_of_LAST_Touches
weekly-newsletter	447
retargetting-ad	443
retargetting-campaign	245
getting-to-know-cool-tshirts	232
ten-crazy-cool-tshirts-facts	190
interview-with-cool-tshirts-founder	184
paid-search	178
cool-tshirts-search	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_source,
    pv.utm_campaign
  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 as Campaign_Name,
  COUNT(distinct(lt_attr.user_id)) as Number_of_LAST_Touches
FROM
  lt_attr
GROUP BY
  lt_attr.utm_campaign
ORDER BY
  Number_of_LAST_Touches DESC;
```

Effectiveness of each campaign



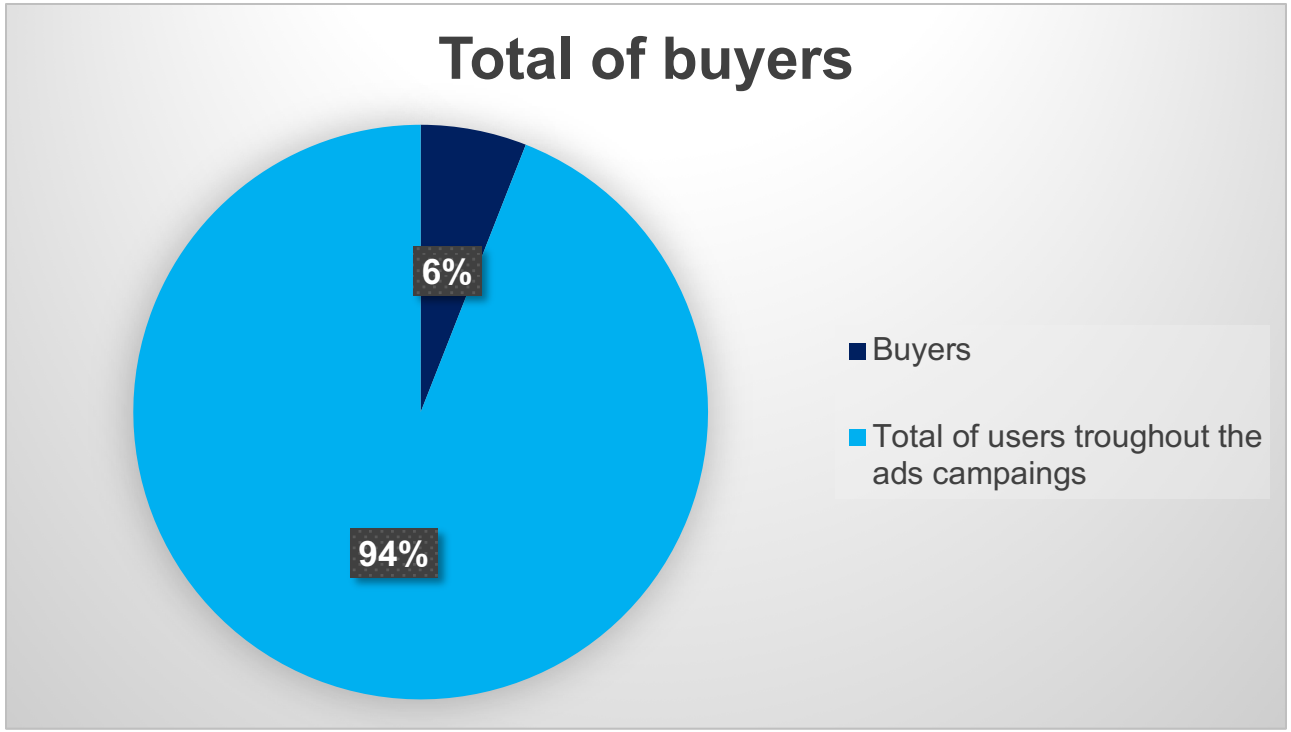
Total of buyers

- The result of this query shows the number of visitors that make a purchase.

Buyers
361

```
SELECT
        count (distinct(user_id)) as Buyers
FROM
         page_visits
WHERE
         page_name = '4 - purchase’
GROUP BY
          page_name;
```

Effectiveness of each campaign



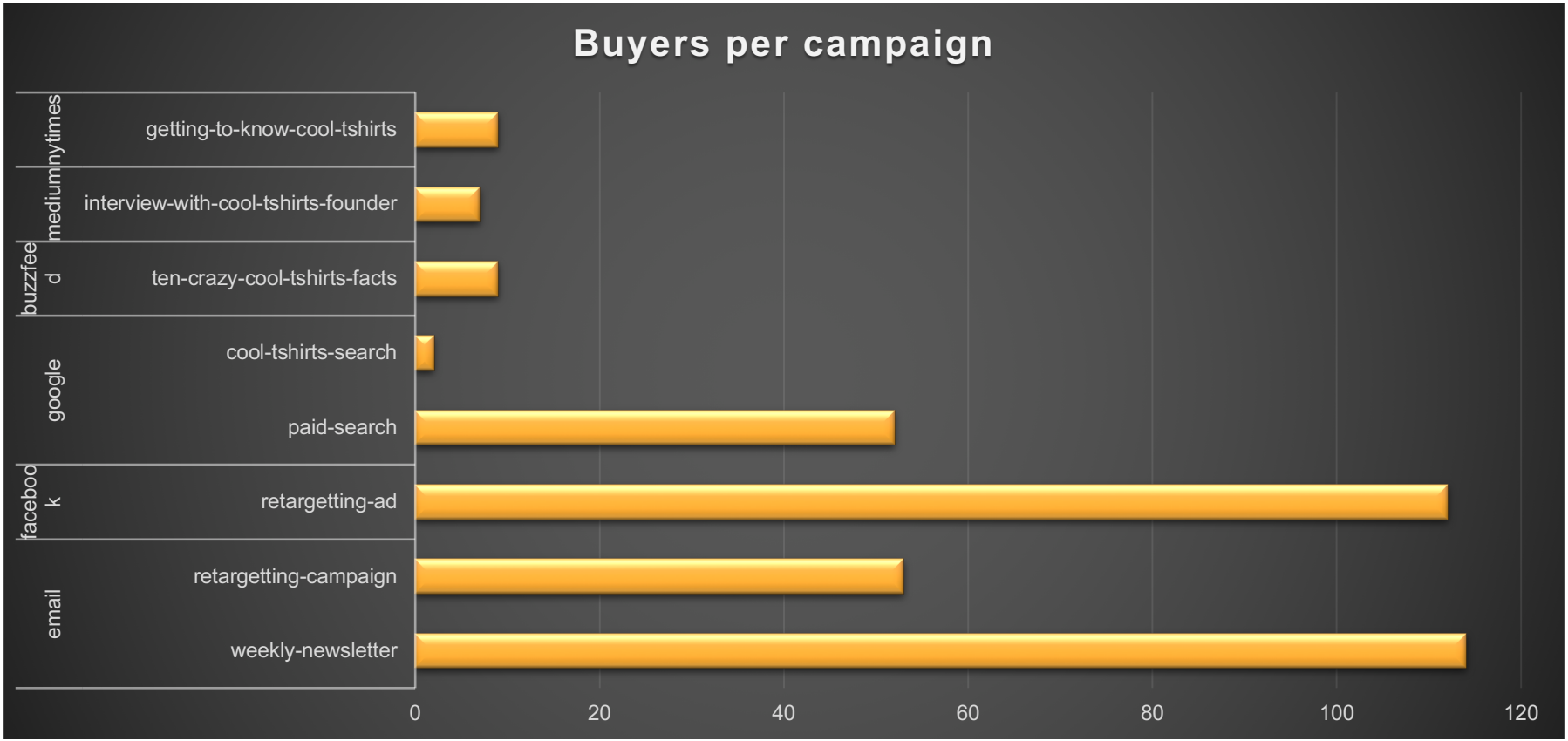
Which campaign was the most effective?

- The result of this query shows the number of last touches in *purchase page* each campaign is responsible for.

Campaign_Name	Number_of_Purchases
weekly-newsletter	114
retargetting-ad	112
retargetting-campaign	53
paid-search	52
getting-to-know-cool-tshirts	9
ten-crazy-cool-tshirts-facts	9
interview-with-cool-tshirts-founder	7
cool-tshirts-search	2

```
WITH LT_page AS (
   SELECT user_id,
         page_name,
         utm_campaign,
         MAX(timestamp) as last_touch_at
   FROM page_visits
   GROUP BY user_id)
SELECT
    LT_page.utm_campaign as Campaign,
    count (distinct(LT_page.user_id)) as Number_of_Purchases
FROM LT_page
WHERE LT_page.page_name = '4 - purchase'
GROUP BY Campaign
ORDER BY Number_of_Purchases DESC;
```

Effectiveness of each campaign



How can CoolTShirts can improve their budget?

By analyzing the data I got from the created queries we can see that three of the eight campaigns, which are related to ***email*** and ***facebook*** sources, were the most effective. Also we can notice that two of them were ***retargeting ads*** and ***weekly newslette***r campaigns. On other hand, two campaigns related to ***google*** and ***medium*** sources were the least effective over the rest.
As I know CoolTshirts co. is able to afford a reinvestment in order to reinforce their campaigns. I suggest to focus on the ***retargeting ad*** campaigns by creating new ones for popular sources like ***google*** and reinforce the ad campaign email services. Also, invest in more paid search campaign in other popular search engines like Bing, Duck duck go, Yahoo, etc.
Regarding those campaigns with low performance like ***cool_tshirts_search***, need to be reviewed and analyzed in depth.
I think that with these adjustments they can have more revenue and increase their popularity as well.