Table of Contents

1. Getting familiar with CoolTShirts
2. What is the user journey?
3. Optimize the campaign budget

1.Getting familiar with CoolTShirts

1.1 How many campaigns and sources does CoolTShirts use and how are they related?

Sources are where a visitor has come from, places such as websites, emails and other communication methods.

Campaigns however are collections of communications with the purpose of eliciting specific responses from potential customers.

Campaigns can utilise multiple sources, such as email communications, ads on websites.

Sources can be used by multiple campaigns, such as email and google being used across multiple campaigns.

```
--Number of distinct sources
SELECT COUNT(DISTINCT utm_source) AS 'Source Count'
FROM page_visits;

--Number of distinct campaigns
SELECT COUNT(DISTINCT utm_campaign) AS 'Campaign Count'
FROM page_visits;

--Relationship between utm_cmapaign and utm_source
SELECT DISTINCT utm_campaign AS Campaigns,
                utm_source AS Source
FROM page_visits;
```

Source Count
6

Campaign Count
8

Campaigns	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

1.2 What pages are on their website?

What pages are on the CoolTShirts website?

- To achieve this, a distinct values search was done on page_names to return distinct values.
- These are most likely top level page's which contain subsets of product pages within.

```
--Distinct pages on CoolTShirts
SELECT DISTINCT page_name AS 'Page Names'
FROM page_visits;
```

Page Names
1 - landing_page
2 - shopping_cart
3 - checkout
4 - purchase

2. What is the user journey?

2.1 How many first touches is each campaign responsible for?

This is achieved from identifying what the earliest time the site was visited at by each unique user.

The subsequent table is then used to derive which campaigns those first touches came from, along with the source for further clarity.

This has then been ordered by most effective to least effective at capturing first touches of potential customers.

Source	Campaign	Count
medium	interview-with-cool-tshirts-founder	622
nytimes	getting-to-know-cool-tshirts	612
buzzfeed	ten-crazy-cool-tshirts-facts	576
google	cool-tshirts-search	169

```
--Temporary table to link user ids and first touch times
WITH first_touch AS (
    SELECT user_id,
        MIN(timestamp) as first_touch_at
    FROM page_visits
    GROUP BY user_id),

--Temp table to join first_touch table with source and
campaign from page_visits

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
)

--Selecting count of first touches associated with a campaign
and source

SELECT ft_attr.utm_source AS Source,
      ft_attr.utm_campaign AS Campaign,
      COUNT(*) AS Count
FROM ft_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

2.2 How many last touches is each campaign responsible for?

This is easy to achieve once you have found user first touch, by simply replacing 'MIN' with 'MAX', and all references of first with last.

This therefore finds the last time a user followed a link to the page, from where and what campaign lead it. Using the same methods as the first user touch.

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

```
--Temporary table to link user ids and last touch times
WITH last_touch AS (
    SELECT user_id,
        MAX(timestamp) as last_touch_at
    FROM page_visits
    GROUP BY user_id),
--Temp table to join last_touch table with source and campaign from
page_visits
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
)
--Selecting count of last touches associated with a campaign and
source
SELECT lt_attr.utm_source AS Source,
      lt_attr.utm_campaign AS Campaign,
      COUNT(*) AS Count
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```

2.3 How many visitors make a purchase?

By visiting the page titled '4 – purchase', this indicates that a purchase has been made.

By selecting the count of distinct user_id that reached this page, we are able to tell how many customers made a purchase.

```
-- Count number of purchase made by distinct users
SELECT COUNT(DISTINCT user_id) AS 'Purchasing
Customers'
FROM page_visits
WHERE page_name = '4 - purchase';
```

Purchasing Customers
361

2.4 How many last touches on the purchase page is each campaign responsible for?

By customising the last touch query previously written, we can garner which purchases each campaign is responsible for.

By adding a WHERE clause in the original temporary table, it will only select the information pertaining to customers who's last touch was when having reached the purchase page, and therefore making a purchase.

Source	Campaign	Count
email	weekly-newsletter	115
facebook	retargetting-ad	113
email	retargetting-campaign	54
google	paid-search	52
buzzfeed	ten-crazy-cool-tshirts-facts	9
nytimes	getting-to-know-cool-tshirts	9
medium	interview-with-cool-tshirts-founder	7
google	cool-tshirts-search	2

```
--Temporary table to link user ids and last touch times
--With added WHERE clause to select last touch on purchase page
WITH last_touch AS (
    SELECT user_id,
        MAX(timestamp) as last_touch_at
    FROM page_visits
                            WHERE page_name = '4 - purchase'
    GROUP BY user_id),
--Temp table to join last_touch table with source and campaign from
page_visits
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
)
--Selecting count of last touches associated with a campaign and
source
SELECT lt_attr.utm_source AS Source,
      lt_attr.utm_campaign AS Campaign,
      COUNT(*) AS Count
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```
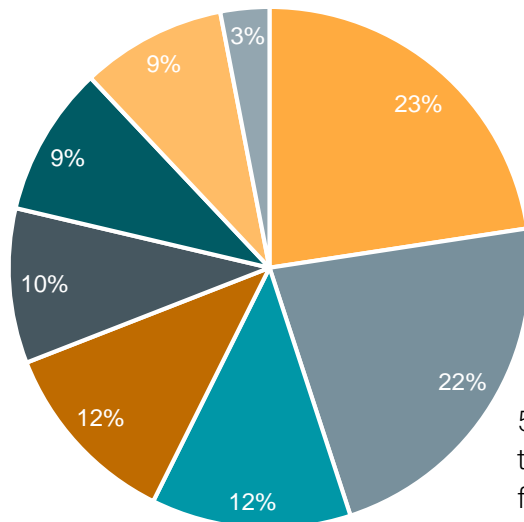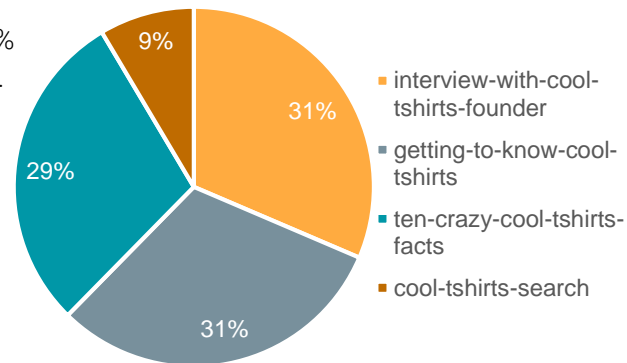
2.5 What is the typical user journey?

Visits to the website are driven by article based campaigns. Only 9% of visitors were directly looking for the website via a google search.

First Touch by Campaign

- interview-with-cool-tshirts-founder
- getting-to-know-cool-tshirts
- ten-crazy-cool-tshirts-facts
- cool-tshirts-search

Last Touch by Campaign

- weekly-newsletter
- retargetting-ad
- retargetting-campaign
- getting-to-know-cool-tshirts
- ten-crazy-cool-tshirts-facts
- interview-with-cool-tshirts-founder
- paid-search
- cool-tshirts-search

57% of potential customers last visit to the website were brought there via retargeting campaigns. Whilst 34% didn't return after their first visit.

2.5 What is the typical user journey? Cont.

Purchases by Campaign

Legend:
- weekly-newsletter
- retargetting-ad
- retargetting-campaign
- paid-search
- ten-crazy-cool-tshirts-facts
- getting-to-know-cool-tshirts
- interview-with-cool-tshirts-founder
- cool-tshirts-search

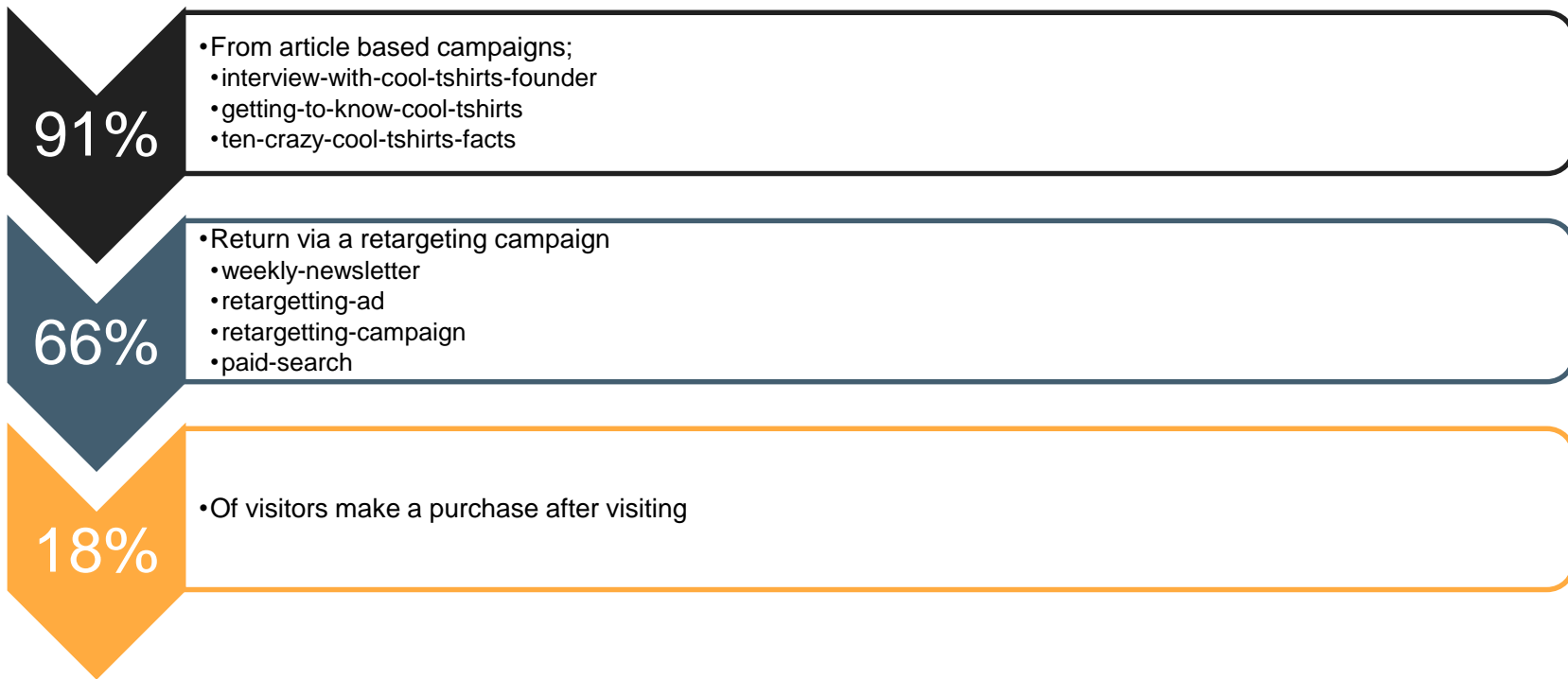**Pie chart values:** 32%, 31%, 15%, 14%, 3%, 2%, 2%, 1%
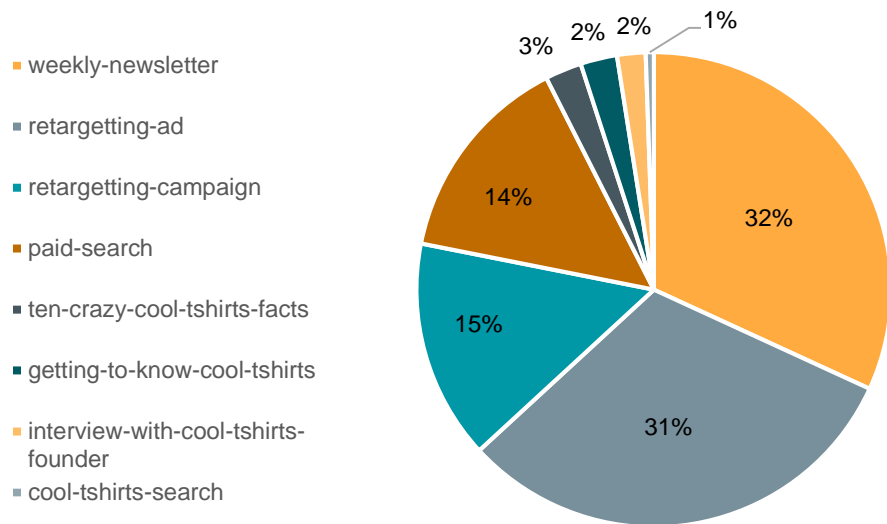
By looking at the campaign figures in conjuncture with the purchases made, we can see that 93% of purchases were made by customers who were retargeted by a second campaign.

Only 7% of sales were actually generated by customers on their first visit.

These high numbers of customers that make a purchase on a 2nd or later visit, show that the majority of customers will make multiple visits to the website before making a purchase.

Furthermore, 47% of these sales are being sourced through email campaigns, and 31% from facebook.

2.5 What is the typical user journey? Cont.

91%
- From article based campaigns;
  - interview-with-cool-tshirts-founder
  - getting-to-know-cool-tshirts
  - ten-crazy-cool-tshirts-facts

66%
- Return via a retargeting campaign
  - weekly-newsletter
  - retargetting-ad
  - retargetting-campaign
  - paid-search

18%
- Of visitors make a purchase after visiting

3. Optimize the campaign budget

3. CoolTShirts can re-invest in 5 campaigns. Which should they pick and why?

8 campaigns are run by CoolTShirts.com

4 are acquisition campaigns

4 are retargeting campaigns.

All customers first touch with CoolTshirts are from the 4 acquisition campaigns.

When needing to determine what campaigns are the most effective, there are 2 main things to consider
1. What campaign are the purchases coming from
2. How many people are following the campaign link and being exposed to the products/website

With 93% of sales being made by those on their second or later visits via a retargeting campaign, it is easy to state that these are the most important due to sales being made. However, these second visits are all derived from an original acquisition campaign.

It can therefore be stated that the acquisition campaigns are the most important.

In reality, a mix of both is required to provide the best outcome in sales. The best acquisitions, and the best retargeting campaigns.

3.1 CoolTShirts can re-invest in 5 campaigns. Which should they pick?

Using the previously mentioned rationale, the 3 highest acquisition campaigns should be re-invested in, due to that being the source of 91% of visitors. These are; interview-with-cool-tshirts-founder, getting-to-know-cool-tshirts and ten-crazy-cool-tshirts-facts.

This leaves a further 2 campaigns to keep, logic dictates these should then be the 2 highest purchase closing campaigns, the weekly-newsletter and retargeting-ad.

Campaign	% 1st Touches	% Last Touches	% Purchases
interview-with-cool-tshirts-founder	31%	9%	2%
getting-to-know-cool-tshirts	31%	12%	2%
ten-crazy-cool-tshirts-facts	29%	10%	2%
cool-tshirts-search	9%	3%	1%
weekly-newsletter	0%	23%	32%
retargetting-ad	0%	22%	31%
retargetting-campaign	0%	12%	15%
paid-search	0%	9%	14%

3.2 CoolTShirts can re-invest in 5 campaigns. Why are these campaigns picked?

In the same manor that we need to pick 5 campaigns to keep, this also means that we need to remove 3 campaigns. The worst performing campaigns are Cool-tshirts-search, paid search and retargeting-campaign.

We can also take into consideration the sources for each campaign, removing the retargeting-campaign is controversial, due to it drawing in a substantial 15% of purchases, however we have 2 campaigns that use email sources, by removing this one, we maintain campaigns across multiple locations, and remove a double up of email messages where we are already targeting with a more successful campaign.

Campaign	Source	% 1st Touches	% Last Touches	% Purchases
interview-with-cool-tshirts-founder	medium	31%	9%	2%
getting-to-know-cool-tshirts	nytimes	31%	12%	2%
ten-crazy-cool-tshirts-facts	buzzfeed	29%	10%	2%
cool-tshirts-search	google	9%	3%	1%
weekly-newsletter	email	0%	23%	32%
retargetting-ad	facebook	0%	22%	31%
retargetting-campaign	email	0%	12%	15%
paid-search	google	0%	9%	14%