



Capstone: Attribution

Learn SQL from Scratch

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1. Introduction to CoolTShirts campaigns

1.1 Campaigns and Sources

There are 8 different campaigns run through 6 sources in the database as per the table to the right.

Campaign refers to the individual campaign which is captured in the database as `utm_campaign`

Related source refers to the site that sent traffic to CoolTShirts and is captured in the database as `utm_source`

- 2 campaigns are run through email, these are weekly-newsletter and retargeting-campaign
- 2 campaigns are run through google, these are paid-search and cool-tshirts-search
- The other campaigns are run through unique sources.

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

1.2 Pages on the website

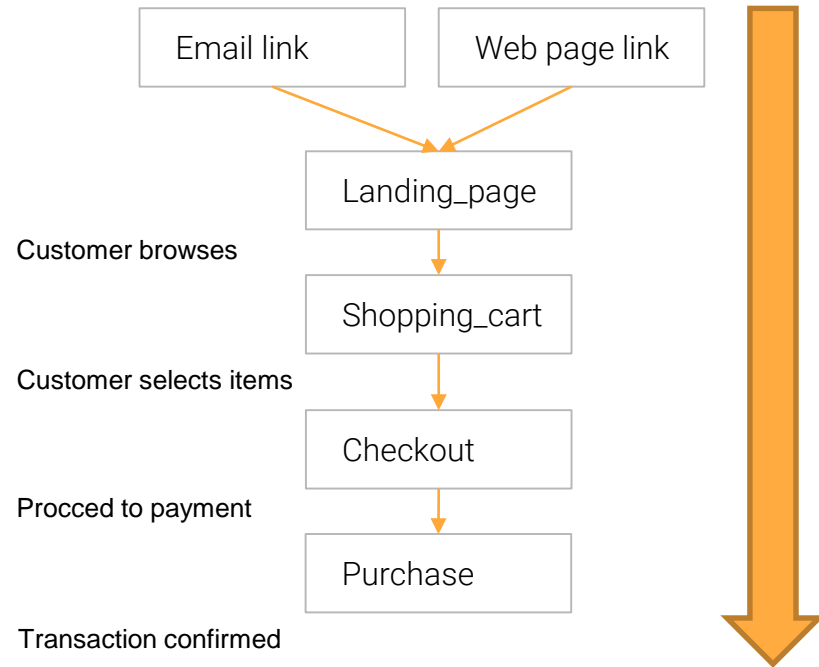
There are four pages in the CoolTShirts website and number of touches is captured at each point. The number of touches related to each campaign and source in the previous slide are also captured.

The four pages are described below.

Page Name	Description
1 – landing_page	This page is where consumers first arrive from clicking the link in a campaign
2 – shopping_cart	When a consumer selects an item from the store it is added to their virtual shopping cart
3 – checkout	The checkout page confirms the items in the cart
4 - purchase	The purchase page shows completed transactions

2. The user journey

2.1 User journey



- The customer is directed to the landing page from whichever campaign link is clicked on. This could either be from a link embedded within an email or from a website
- They then choose the items they wish to buy
- They go to checkout and enter their payment and delivery details
- They then confirm the transaction.

2.1 First and last touch campaign results

First touch results by campaign

Campaign	Number of visitors
interview-with-cool-tshirts-founder	622
getting-to-know-cool-tshirts	612
ten-crazy-cool-tshirts-facts	576
cool-tshirts-search	169

There are 8 different campaigns run through 6 sources in the database as per the table to the right

Last touch results by campaign

Campaign	Number of visitors
weekly-newsletter	447
retargeting-ad	443
retargeting-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

2.2 Campaigns results

Number of purchases attributed last touch by campaign

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

361 purchases are made in total

The typical user journey is not to buy from first touch campaigns

Users have a much higher propensity to purchase when going from an email or from facebook to the shop

3. Campaign budget optimisation

3.1 Campaigns results

Source	Campaign	Number first touch	Number last touch	Total touches	Number of purchases	% purchases from first touch	% purchases from last touch	% purchases from total touches
email	weekly-newsletter		447	565	115	n/a	25.7%	20.3%
facebook	retargeting-ad		443	558	113	n/a	25.5%	20.2%
email	retargeting-campaign		245	300	54	n/a	22.0%	18%
google	paid-search		178	231	52	n/a	29.2%	22.5%
nytimes	getting-to-know-cool-tshirts	612	232	1,349	9	1.5%	3.8%	0.6%
buzzfeed	ten-crazy-cool-tshirts-facts	576	190	1,198	9	1.6%	4.7%	0.7%
medium	interview-with-cool-tshirts-founder	622	184	1,178	7	1.1%	3.8%	0.6%
google	cool-tshirts-search	169	60	313	2	1.2%	3.3%	0.6%

3.2.2 Investment case – Last Touch

Source	Campaign	Number first touch	Number last touch	Total touches	Number of purchases	% purchases from first touch	% purchases from last touch	% purchases from total touches
email	weekly-newsletter		447	565	115	n/a	25.7%	20.3%
facebook	retargetting-ad		443	558	113	n/a	25.5%	20.2%
email	retargetting-campaign		245	300	54	n/a	22.0%	18%
google	paid-search		178	231	52	n/a	29.2%	22.5%

If we take last touch in isolation, this only informs us of the best method to close a sale. As you can see above, none of these campaigns have first touch so investing solely in these will not draw new traffic to the website. They are however essential to drive sales!

3.2.3 Investment case – First Touch

Source	Campaign	Number first touch	Number last touch	Total touches	Number of purchases	% purchases from first touch	% purchases from last touch	% purchases from total touches
nytimes	getting-to-know-cool-tshirts	612	232	1,349	9	1.5%	3.8%	0.6%
buzzfeed	ten-crazy-cool-tshirts-facts	576	190	1,198	9	1.6%	4.7%	0.7%
medium	interview-with-cool-tshirts-founder	622	184	1,178	7	1.1%	3.8%	0.6%
google	cool-tshirts-search	169	60	313	2	1.2%	3.3%	0.6%

Again if we just take first touch into account we do not get an accurate picture. The metric of Number of purchases against first touch does not indicate the value of these campaigns as very few users go through all the way to purchase and complete a transaction on first touch.

3.3.1 Investment case – Conclusion

Source	Campaign	Sales	Retain
medium	interview-with-cool-tshirts-founder	118	Yes
buzzfeed	ten-crazy-cool-tshirts-facts	109	Yes
nytimes	getting-to-know-cool-tshirts	103	Yes
google	cool-tshirts-search	31	No

- If we look from first touch all the way through to sales, 3 of the campaigns drive most of the traffic
- We do this by tracking which first touch campaign matches successful sales
- Based on the results I recommend dropping `utm_source google`, `utm_campaign cool-tshirts-search` and retaining the others.

3.3.2 Investment case – Conclusion

Source	Campaign	Number last touch	Total touches	Number of purchases	% purchases from first touch	% purchases from last touch	% purchases from total touches	Retain
email	weekly-newsletter	447	565	115	n/a	25.7%	20.3%	Yes
facebook	retargetting-ad	443	558	113	n/a	25.5%	20.2%	Yes
email	retargetting-campaign	245	300	54	n/a	22.0%	18%	No
google	paid-search	178	231	52	n/a	29.2%	22.5%	No

- The evidence so far shows that we cannot rely solely on the first touch campaigns as they lead to few sales
- Based on the data, I recommend retaining utm_source email, utm_campaign weekly-newsletter along with utm_source facebook, utm_campaign retargetting_ad. They are responsible for 63% of the overall sales
- Although utm_source google, utm_campaign paid-search has a higher conversion rate, its contribution is far lower.