

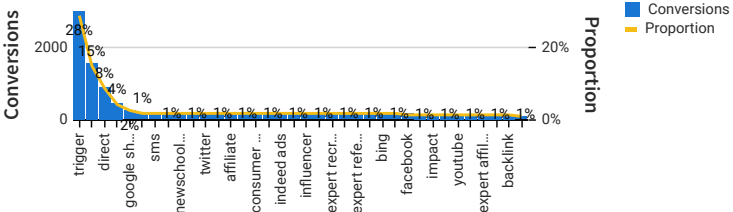
Part 1: Attribution

1. How are our marketing channels performing? Please give an efficiency number and explain your methodology. How did you attribute conversions? Why did you make this choice? Are there any risks with the attribution methodology you chose?
- The best-performing marketing channels are CRM and Google ads.
 - First-touch, last-touch, and linear attribution models are oversimplified. They can lead to overconfidence that can misguide future business and marketing decisions.
 - In the context of channel attribution, Markov chains give us a framework to model user journeys and how each channel/touchpoint factors into their journey.
 - However, there are drawbacks to using Markov chains.
 - No history: Markov chain attribution models assume that the probability of transitioning to the next touchpoint depends only on the current touchpoint and not on the history of previous touchpoints. This assumption may not hold in all real-world scenarios, as customer behavior can be influenced by various factors beyond the immediate previous touchpoint.
 - Timeframe: Markov chain attribution models require the specification of an attribution window, which determines the time frame over which touchpoints are considered relevant for attribution. Choosing an appropriate attribution window is crucial, as different window lengths can yield different attribution results and may not capture the full impact of long-term touchpoint interactions.
 - *We considered all previous touchpoints up to the previous order date for our attribution model.
 - Complexity: Markov chain attribution models may oversimplify complex customer journeys by assuming a linear sequence of touchpoints, neglecting cross-channel and cross-device interactions.
 - Intuition: Attribution models provide insights, but interpreting the results and the subsequent decision-making process is subjective. So, it's crucial to avoid over-reliance on the attribution model and to complement it with other analytical methods and domain expertise.

attributions.csv

fact_attributions_touch_source	conv...	conversion proportion
trigger	2976	28%
google ads	1529	15%
direct	878	8%
...
SUMMARY		10453
36 Rows – 4 Columns		Sum of conversions

Conversions by Touch Source



Touchstream - 2022.csv

fact_attributions_user_id	fact_attributions_touch_source	fact_attributions_source_group	fact_attributions_touch_occurred_date
urn:user:c543d399-134b-47d0-b3b1-d9a64c97912b	trigger	crm	2022-12-31 00:00:00
urn:user:c543d399-134b-47d0-b3b1-d9a64c97912b	direct	direct	2022-12-31 00:00:00
urn:user:c543d399-134b-47d0-b3b1-d9a64c97912b	direct	direct	2022-12-30 00:00:00
urn:user:c543d399-134b-47d0-b3b1-d9a64c97912b	google	search	2022-12-30 00:00:00
urn:user:c543d399-134b-47d0-b3b1-d9a64c97912b	trigger	crm	2022-12-30 00:00:00
...
298 Rows – 4 Columns			