Y42

Why Attribution Modeling Matters

And How to Choose the Right One for You

Facebook
Twitter
Google Ads
Direct
Organic

BY Florian Scherer and Giang Nguyen | 11 min read

TABLE OF CONTENT

INTRODUCTION

Attribution modeling is a mapping between (online) touchpoints and the specific events or results that you are trying to achieve. A common motivation is the optimization of marketing efforts, since attribution helps to determine which efforts yield results and which lead nowhere. While this often means figuring out which paid campaigns lead to an actual sale, attribution is not limited to this use case.

In e-commerce, implementing attribution requires you to collect data
- from your ads (clicks, impressions, and spend),
- from your shop (orders and source of traffic),
- and analytics data (to track returning visitors).

Combining this information allows you to trace your customer's journey before purchasing the product. Now, both the marketing spend and order value can be attributed to the individual touchpoints, hence the name marketing attribution.


CUSTOMER JOURNEY

WHY DOES IT MATTER?

Marketing attribution helps businesses focus their marketing efforts on the right initiatives. It is no longer enough to just look at P&L at the end of the month; you need to drill into the cause and effect of the data.

What's more, it is not sufficient to only look into the ads manager of the marketing channels or Google Analytics. With one or two channels, it is still straightforward for advertisers to attribute a conversion to one of the channels. But as soon as online marketing gets scaled up and more and more marketing channels are involved, the question of which channel actually contributed to the conversion is no longer quite so straightforward. Every marketing channel involved in the customer journey will claim the conversion for itself. For e-commerce businesses especially, where marketing spend and conversion rates are often part of the core KPIs, a deep understanding is vital. Marketing attribution is one of the most important tools, enabling you to analyze and then adjust your whole business around that.

	Facebook	Google Ads	Direct	Organic	Twitter
(Analytics)	0	0	0	100€	0
(Facebook)	100€	0	0	0	0
(Google Ads)	0	100€	0	0	0
(Twitter)	0	0	0	0	100€

This example shows that a purchase with a conversion value of 100€ will be claimed by all marketing channels that have led the customer to the shop, since the pixel implemented on your shop will track this conversion for the ad providers. Checking the ads manager of all contributing channels and then summarizing the individual sum of revenue will result in a revenue sum higher than 100€.

A look into the sales by marketing channel dashboard in Google Analytics will show that Organic Search has generated 100€, since Google Analytics uses the last-click attribution by default. Hence, we have an issue: how to accurately allocate the 100€ conversion value to the contributing parties.

In addition to helping with allocating the marketing budget, attribution can also be used to extract the margins by product or campaign. Another example is that it would allow you to calculate a margin per customer and therefore increase the accuracy of your customer lifetime value calculation. Ultimately, marketing attribution will help you to understand in more detail the most important value drivers of your online business and will allow you to steer your business towards higher profitability.

WHY IS ATTRIBUTION MODELING HARD?

Implementing attribution modeling for most businesses is not a plug-and-play service; it requires decisions in the context of a business and additional technical implementation, such as:

- **Choosing the attribution type.** There are many different types of marketing attribution and there is not one catalog that ultimately defines them.
- **Integrating good attribution data.** Attribution data usually comes from many different sources and the data integration needs to be set up correctly to avoid bad input data.
- **Implementing attribution modeling.** The data modeling for many attribution models can be very complex and you often need advanced SQL skills for it.
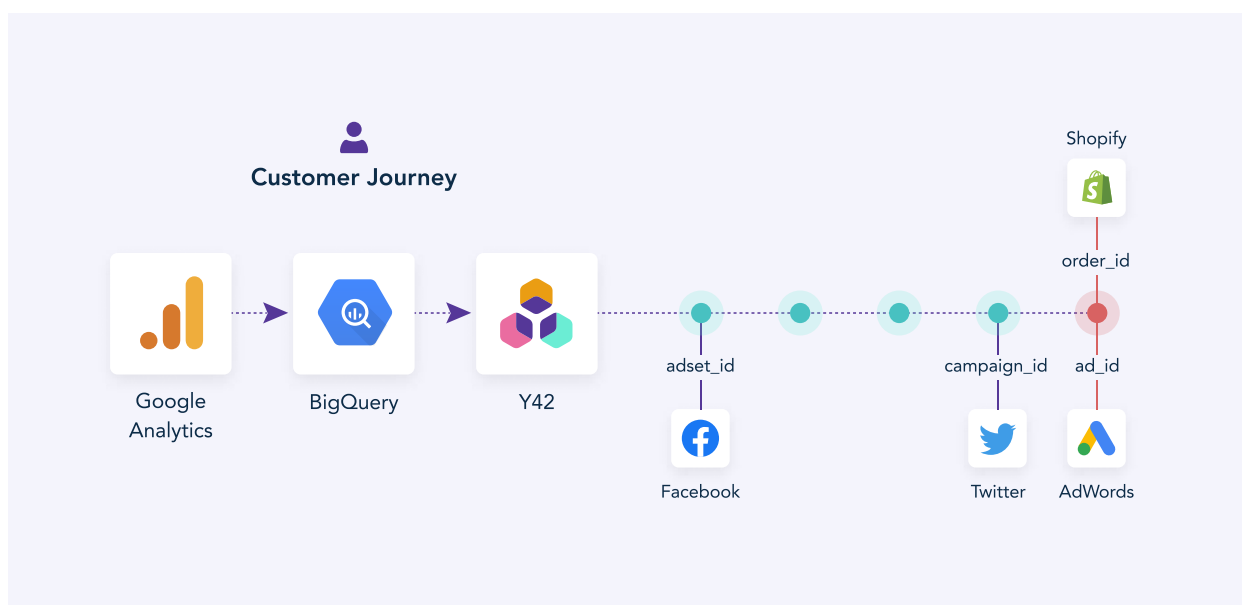
CHOOSING THE RIGHT ATTRIBUTION TYPE

The first hurdle for most people is that they don't know which type of marketing attribution is correct for them. When you want to connect your revenue to your marketing spend, there are many different ways of doing this and each method works differently.

You need to decide which touchpoints you want to include in your model. When you do last-click attribution, only your customer's very last touchpoint before they purchased will be considered for your attribution model. This means that only the ad that they clicked on during the purchase session will be attributed to any revenue. If you decide to consider more than one touchpoint, you need to choose an attribution window. A 30-day attribution window means that all touchpoints 30 days prior to the purchase will get a contribution share of that purchase.

INTEGRATING GOOD ATTRIBUTION DATA

After you have decided on the overall type of attribution modeling, you will need to make sure that you have the required technical setup for it. When you want to connect your revenue data to your marketing data, this means that you need to collect a lot of data from both sides and make sure this data is kept clean at all times.

The most critical part of this data is your UTM tags. UTM tags are the important link between your revenue and your marketing. When a customer clicks on your ad and is forwarded to your online shop, part of the URL is your UTM tags which let the shop know which ad and campaign the customer came from. This means that you need to make sure that all campaigns are associated with the correct UTM tags on the marketing side, but also, that all your shop visits save these parameters correctly.
This is the part that we see many companies struggle with the most. Often, they have put UTM tags in place in the past, but have never put in the effort to keep them clean. This leads to bad input data for your marketing attribution. So when you are thinking about doing marketing attribution in the future, make sure that you have a clean tagging setup.

IMPLEMENTING ATTRIBUTION MODELING

The last critical point for your marketing attribution is your modeling setup. Once you have collected all the input data and made sure that the data is clean, you need to do the modeling itself. This usually happens in your data warehouse where you bring all your data together. Overall, there are two steps involved in this:

1) Firstly, you need to get your raw data into the data warehouse. This often means streaming data from your ad providers, your Google Analytics for instance, as well as your revenue data into the data warehouse of your choice. Some companies already have this setup for their regular reporting.

2) Next, you need to build the data models which actually implement your attribution logic. This depends a lot on the different types of marketing attribution, but most attribution models contain quite complex logic and require advanced SQL skills to implement them correctly.

TYPES OF MARKETING ATTRIBUTION MODELS

Naturally, every marketing channel involved in the customer journey will attempt to claim the conversion! How you design a model will decide the contribution a channel receives from a conversion, which significantly affects its profitability.

Simple attribution models are single-click attributions. That means the complete conversion is attributed to just one single touchpoint. More advanced attribution models consider multiple or all touchpoints of the customer's journey prior to the conversion. And very complex models account for more than just click touchpoints, and include impressions, usage of discount codes, and more.

The following is an overview of the most commonly used attribution models:

SINGLE-CLICK ATTRIBUTION MODELS

Model	Description	Touchpoints
Last-click	The last click or touchpoint prior to the conversion receives 100% credit for the sale. Google Analytics is using this as default conversion attribution. The advantage of this model is its simplicity and out-of-the-box usability. Although, it clearly gives lower funnel channels an advantage and underestimates the value of more upper funnel channels.	
First-click	The first touchpoint which has led the customer to the shop receives 100% credit for the sale. Similar to the last-click model, the first-click model is doing an unfair attribution and only considers channels which are on top of the funnel.	
Last-non-direct click	The last touchpoint that is not direct traffic received all credit for the conversion. The assumption for this model is that customers often re-visit your shop by going directly to your website. Since direct traffic must be "induced" by an awareness generating channel, the idea of this model is to give the credit to the last touchpoint which didn't come directly.	
Last paid click	The last touchpoint that is not direct traffic received all credit for the conversion. The assumption for this model is that customers often re-visit your shop by going directly to your website. Since direct traffic must be "induced" by an awareness generating channel, the idea of this model is to give the credit to the last touchpoint which didn't come directly.	

MULTI-TOUCHPOINT ATTRIBUTION MODELS

Model	Description	Touchpoints
Position based attribution/ U-curve	The first and last touchpoint are receiving more credit, everything else is evenly distributed among the touchpoints between the first and last touchpoint. A share distribution could look like this: 40% to the first and last touchpoint and 20% is spread out among the remaining touchpoints in the middle. This model includes the assumption that the first and last touchpoints should get more credit since they are first making the customer aware about your business and then persuading the customer to purchase. The touchpoints in the middle are seen as supporting/assisting touchpoints.	
Time decay	The closer the touchpoint is to the time of the conversion, the more contribution share that touchpoint gets assigned. This model provides a realistic representation of purchase intention throughout their journey with your shop as they move closer to the purchase.	
Linear	Each touchpoint leading up to the conversion receives an equal amount of credits for the conversion. This is the most simple type of multi-touch attribution model which gives all contributing touchpoints an equal share of the conversion.	

Acquisition

Reorder

1st Order

attribution model

attribution model

2nd and following Order

WHICH TYPE OF ATTRIBUTION MODELING SUITS YOU?

How you choose an attribution model depends on your business model and the maturity level of your business. The attribution model you use may change over time with the growth of your business. Each model has its reason for existence with advantages and disadvantages.

A natural evolution we see is to progress from last-click attribution to multi-touch attribution. Early-stage companies rely on the default last-click attribution from Google Analytics since there are not many marketing channels yet and the technical setup is quite simple. A tracking setup, as more marketing channels get introduced, then comes into play. At this point figuring out which channel has actually contributed to the conversion gets more complex.

A solely last-click attribution despite multiple active marketing channels would lead to inefficient budget allocation to lower-funnel activities; giving credit of a conversion to a sole channel would be "unfair". Each marketing channel serves a certain function within the marketing funnel, thus, the performance of each of them will be measured by different metrics since they have different goals.

For businesses with short sales cycles, it might make sense to rely on a single-click attribution model and measure the performance with the conversion rate. For businesses with customer journeys across longer touchpoint chains, it's fair to measure the performance of a touchpoint based on its purpose (e.g. CTR, number of impressions generated) and to give a contribution share to all involved touchpoints.

Having this raw event data means you can identify:

- How many touchpoints your customer had with your shop prior to the purchase,
- When these touchpoints happened,
- Which marketing channels led your customer to your shop,
- How much time the customer spent on your shop,
- And, finally, all involved touchpoints that participated in the conversion.
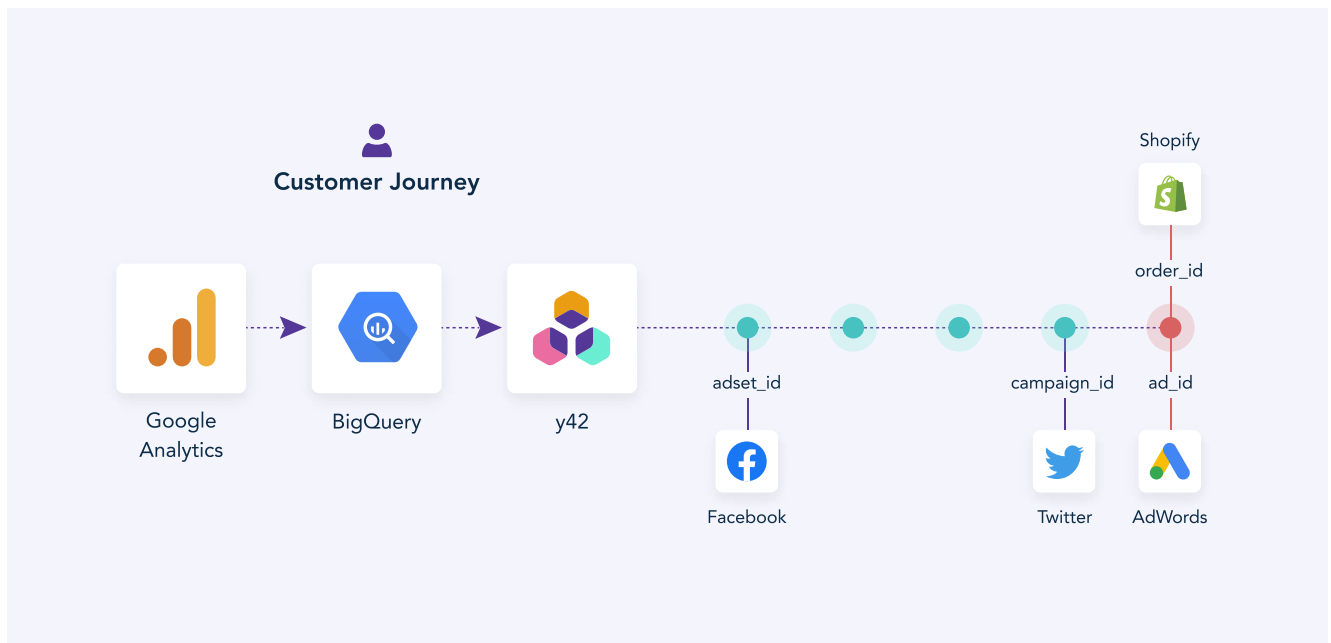
This also means that you are collecting a significant amount of data which needs to be stored, structured and modeled in order to let your attribution model assign a contribution share to each touchpoint. Necessary prerequisites to conduct this process are the technical setup (event tracking, data storage and data modeling capabilities) and data professionals who can set up this infrastructure, and maintain it, to capture quality data you can use.

To sum up, aspects to think about when considering implementing an attribution model are:

- **The number of different marketing channels and campaigns you are running simultaneously** — if you only have a few channels and campaigns active, a single click attribution model could be sufficient. If you already have a lot of channels and campaigns which are synergetically built on top of each other and maybe even want to include some special attribution logic (e.g. including impressions), a multi-touch attribution model is recommended.
- **Technical prerequisites**: if a complex multi-touch attribution model doesn't appeal through technical requirements or ongoing costs, the usage of a last-click attribution model (default in Google Analytics) is recommended.
- For a multi-touch attribution model you will definitely need at least 1 **dedicated data professional** who is familiar with data modeling in order to build the desired attribution logic.
- Besides personnel, you will need to set up an **event tracking system and store this historical event dataset**. An exemplary setup is using Google Tag Manager (GTM) and Google Analytics 4 (GA4). In GTM you will create the events you want to track and with GA4 you can analyze this data but more importantly, you can export this raw event data to Google BigQuery where you use the data to conduct your attribution model.

SUMMARY

We hope we have been able to give you a thorough understanding of marketing attribution and why it is important—as well as hard—to do right.

There is no right answer to what the best marketing attribution model is, as it greatly depends on your business model and the maturity level of your business. The key takeaway here is to consciously think about aspects that are needed in order to set up proper attribution modeling.

Because as with any data-related effort, proper implementation is the key to success.

Contact us at any time to learn more and see Y42 in action. We're happy to show you how you can easily set up marketing attribution in our data tool!

Visit Y42.com if you want to learn

- Whether we support your data integrations
- How to visualize your modeled data
- How our tool looks like in action: Watch Demo