

Marketing Attribution Modeling



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A quick intro to attribution

- **Are you sure that your marketing budget is working to its full potential?**
- **Does your brand use an optimal mix of channels your target audience?**

If you find it difficult to answer these questions, marketing attribution might bring more clarity.

Marketing attribution shows you how your marketing efforts contribute to revenue growth and brand perception, and how they shape the customer journey.

On a grander scale, a well-designed attribution allows you to make smarter decisions on marketing resource allocation. It removes a lot of guesswork by showing you the entire picture of the customer journey and how each touchpoint impacts the conversion.

Stats can only vouch for that. For example,

20%

Marketing teams that map the ad spend to revenue are 212% more likely to have year-over-year growth greater than 20%.¹

59%

of teams with a sophisticated attribution process are more likely to have a reputation of being a revenue center, not a cost center.¹

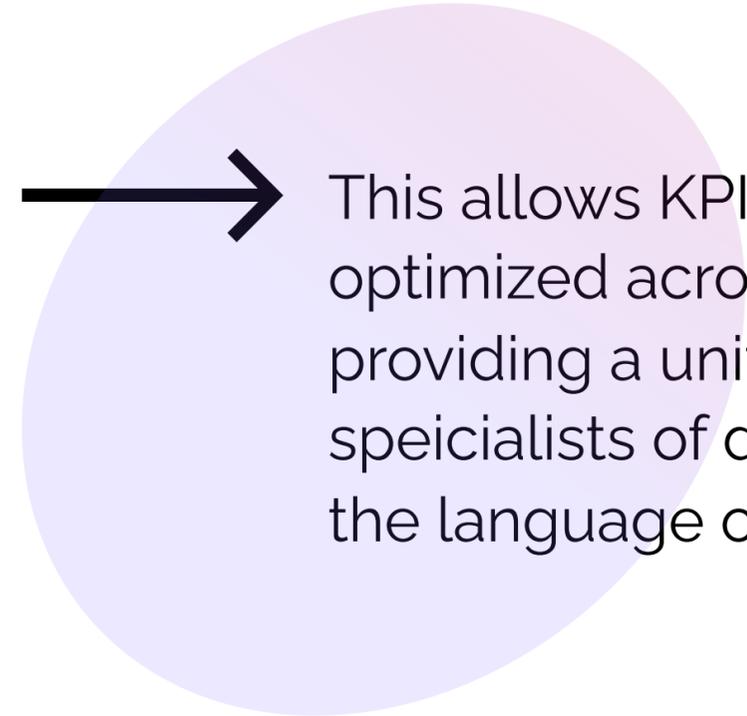
In other words, marketing teams can switch from tracking impressions, clicks, email open rates, and input costs of other marketing activities to measuring the real impact on revenue generation.

¹ State of Pipeline Marketing Report by Bizible

Consequently, attribution impacts a company much more than just helping marketers.

While CFOs want to see the actual revenue generated by marketing activities, the sales team wants to see how marketing campaigns affect the number and quality of opportunities.

With marketing attribution, CMOs have a reliable source of information to report on how traffic, content shares, pageviews, or conversions influence generated revenue or the number of closed-won opportunities driven by each channel.



This allows KPIs to be aligned and optimized across departments, providing a unified language to specialists of different backgrounds: the language of revenue.

How attribution works

Marketing attribution allows teams to measure the effectiveness of each touchpoint across the marketing funnel by assigning particular weights to each of them.

52%

Only 52% of marketers rely on attribution in their reporting.¹

25%

of marketers are not even reporting on how their campaigns influence revenue.¹

Basic metrics don't provide enough information for analysts to build a holistic picture of the company's marketing performance. That's why marketing platforms, such as Facebook Ads, Google Ads, and others, share their attribution data. This helps marketers identify exactly which platform influenced the conversion.

Platforms such as Facebook Ads or Google Ads often show data that is biased toward them. If you try to aggregate data across all of these platforms, you'll end up with more conversions than you've generated in reality.

Proficient marketing teams build attribution in-house or search for a third-party vendor that can set up an attribution process that is not biased or influenced by any third-party platform's interests. There are three main dots to connect when building an attribution:

- **Marketing activities:** All the online and offline campaigns launched.
- **Engagement:** All the prospects who engaged with your marketing efforts.
- **Performance metrics:** The results presented in the form of revenue, generated pipeline, MQLs, SQLs, opportunities, etc.

However, developing a custom attribution process is often associated with many challenges.

¹ Hubspot state of marketing 2020

Challenges of marketing attribution

Even though native tools provided by platforms may show you inaccurate data, they are the easiest way to understand the importance of different touchpoints across your funnel.

When building attribution from scratch, you first face large amounts of data scattered across different marketing and sales tools. This data should be aligned and transformed into a digestible format for attribution.

At this stage, marketers have two options:

- **Manual approach**

Aggregate data manually and transform it with SQL queries.

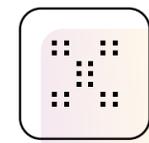
- **Software approach**

Use marketing analytics software to aggregate and transform data automatically

Challenges of the manual approach



Plenty of routine data aggregation tasks.



Insights are often exported piecemeal, and therefore quickly become outdated.



Marketing platforms have different naming conventions which are hard to align manually.

Software approach

Revenue data platforms automate the data aggregation process and provide marketers with analysis-ready insights in real time.

300+ platforms

For example, Improvado automatically extracts data from 300+ marketing and sales platforms, aggregating it in a centralized data warehouse or even pushing it to a number of destinations. The data pipeline allows for hourly updates of metrics without any manual operations.

MCDM

Most importantly, the platform's Marketing Common Data Model (MCDM) automatically aligns disparate naming conventions. Marketing teams get access to business-ready data that can be used for attribution or other analytics operations.

Engagement ≠ revenue growth



Another common bias among marketers is that they often associate high engagement rates with leads and revenue. Even though companies that improve their engagement experience up to a 22% increase in cross-sell revenue, relying solely on engagement rates is a fundamentally incorrect approach to attribution.¹

Engagement metrics are important. However, what's more important is viewing them in the context of your business goals. Campaign goals might differ. While one campaign generates brand awareness, the other one focuses on conversions.

Attribution should determine how both awareness and performance campaigns contribute to revenue growth.

That's when marketers resort to using attribution models.

¹ Forbes. Why Customer Engagement Should Be Every Business's Top Priority in 2020

Attribution models in a nutshell

Marketing attribution models are different ways of distributing credit across touchpoints. Each model is a framework that determines how you'll weigh credit.

Statistician George E. P. Box once said:

"All models are wrong, but some are useful."

That's why modern marketing analytics platforms can offer you specific attribution models that fit the scope of your marketing efforts. Different models will fit different strategies.

Besides, the various models have different levels of technical complexity. Even though each company needs an attribution process, it might be too resource-intensive to implement a sophisticated, multi-touch model.

However, it's important to understand that attribution models don't "tell" you the areas in which to increase or decrease your ad spend. It's only a statistical measurement of historical campaign performance. The final decision should be made based on the campaign's goals, budgets, business specificities, and so on.

Overview of different types of models

The whole scope of attribution models can be divided into two categories:

- **Single-touch attribution models.**

Single-touch attribution models assign 100% credit to a single touchpoint throughout the entire customer journey.

These models are usually used by companies that need a quick attribution solution to test their hypotheses.

While these models are a lot easier to implement, they omit every touchpoint except for the first or last ones. This makes it impossible to track the impact of other touchpoints in the funnel.

At the start, a single-touch attribution model will do just fine for analyzing your campaign performance. You can switch to other models later as your campaign develops or you obtain resources.

- **Multi-touch attribution models.**

Multi-touch attribution models share the credit across several touchpoints. Despite being harder to implement, they provide more detailed insights into the customer journey and show the impact of each touchpoint on the conversion.

Different models distribute credit differently. That's why you'll need to find the right model for your specific use case.

On top of that, attribution models can be further divided into two categories:

- **View-through attribution**

In a view-through attribution model, your campaign takes credit for conversion if the prospect touched your customer journey with an impression.

- **Click-through attribution**

In a click-through attribution model, your campaign takes credit for conversion if the prospect touched your customer journey with a click.

Suppose you're advertising a product. If the prospect saw your ad today and then purchased the product a year from now, it makes little sense to attribute the sale to the first view.

However, if the prospect made a purchase within a few days of seeing the ad, you can reasonably say that this ad impacted their purchasing decision.

First-touch attribution model

[Go to model](#) →

The most suitable model for small businesses or startups that need to focus on demand generation and acquisition.

Position-based attribution model

[Go to model](#) →

A variation of a multi-touch model for companies with long sales cycles that use different activities to nurture and retarget prospects.

Last-touch attribution

[Go to model](#) →

A simple solution to report on touchpoints that generate revenue for startups and SMBs. Might be a strong background for A/B tests.

Position decay attribution model

[Go to model](#) →

A model for companies with many touchpoints across the journey. It assumes that the visitor's interest grows with each interaction.

Last non-direct touch attribution

[Go to model](#) →

An upgraded version of the last-touch model for businesses that don't rely on the direct channel in their customer journey.

Time decay attribution model

[Go to model](#) →

An effective model for businesses with complex products that rely on multiple interactions to build trust and educate the client.

Linear attribution model

[Go to model](#) →

A balanced multi-touch attribution model that is suitable for most businesses. Might be a good entry point for a more advanced model.

Custom attribution model

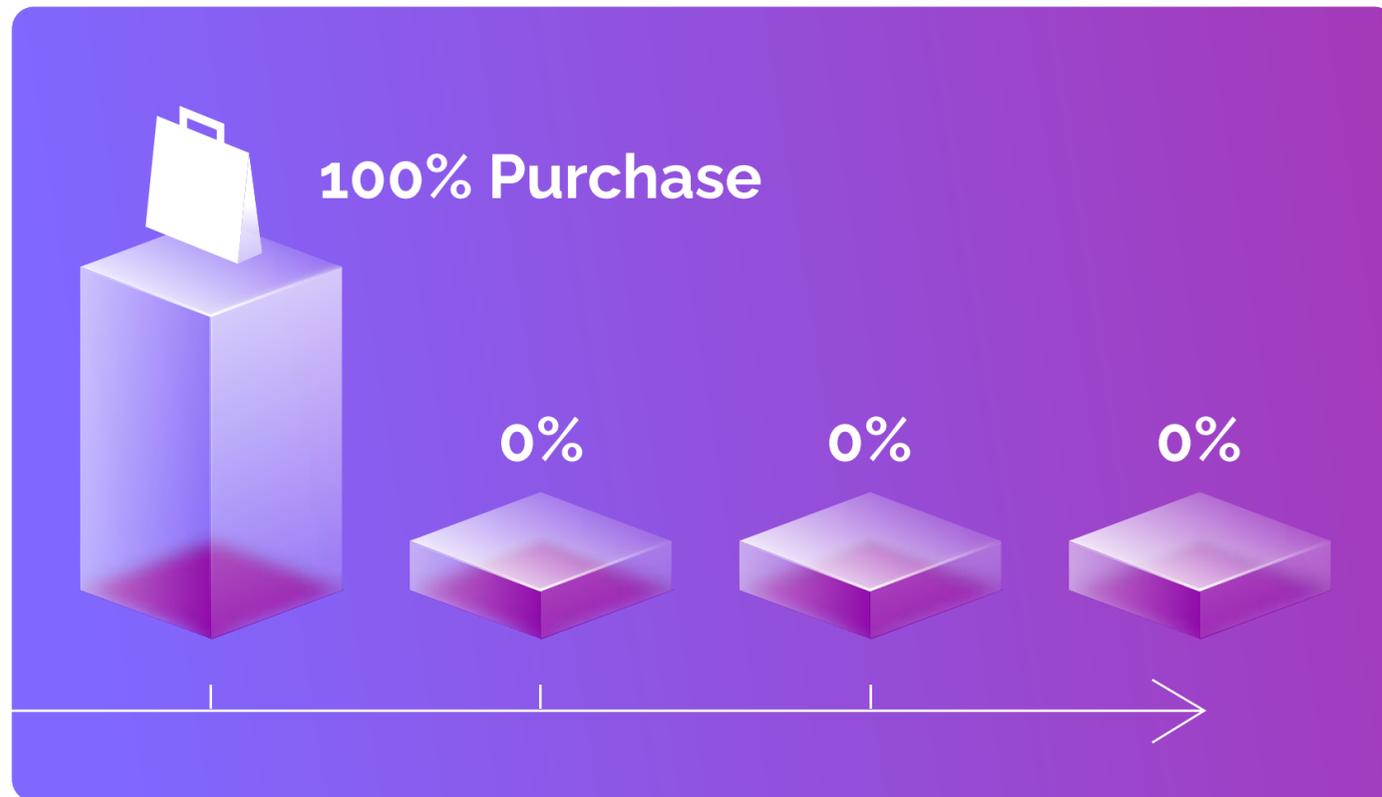
[Go to model](#) →

A custom approach for companies with advanced analytics. The model is built upon complex ML algorithms, formulas, and insights.

First-touch attribution model

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First-touch attribution assigns all credit to the very first touchpoint in the customer journey. However, it ignores all further interactions after the first touch with the brand.

- + A good fit for marketers focused on demand generation and brand awareness.
- + Easy to set up.
- + Attributes revenue to all campaigns that first introduced a customer to your brand.

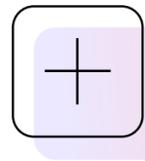
- Very limited space for campaign optimization.
- Marketers can barely report on their impact on revenue growth.



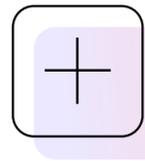
Last-touch attribution model

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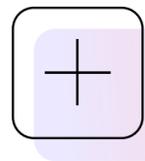
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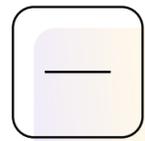
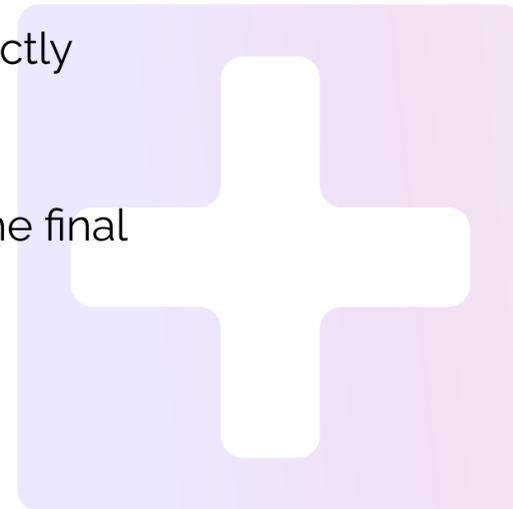
Shows the interaction that has directly led to a purchase.



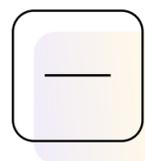
Shows what you're doing right at the final step of the journey.



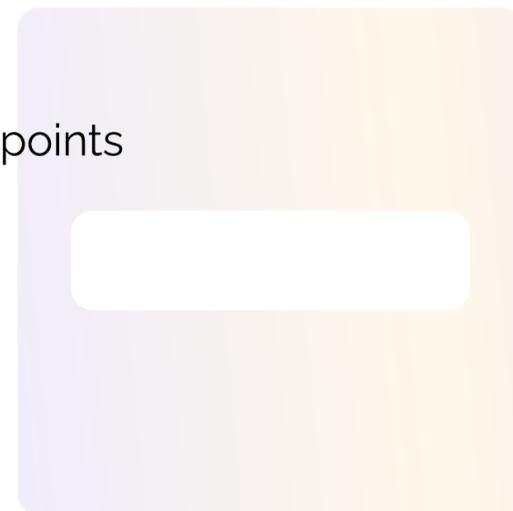
Serves as a strong background for A/B tests.



Doesn't take into account all touchpoints preceding the conversion.



Narrows marketers' field of vision.



Imagine a prospect that has already discovered your brand and decided on the purchase. The next day, they enter your website's URL and make a purchase. The last-touch model attributes this conversion to direct, leaving you with no information about the stage where the prospect has made a purchase decision.



Last-touch attribution is the exact opposite of a first-touch model. It assigns 100% credit to the last step in the customer journey. In contrast to first-touch attribution, this model ignores all steps in the customer journey prior to the purchase.

Last non-direct touch attribution

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As well as other single-touch models, the last non-direct touch attribution model gives 100% credit to a single touchpoint.

- + Works best for businesses with a short buying cycle.
- + Attributes conversion credits to channels you can fully control.
- + Doesn't overinflate the importance of direct traffic.

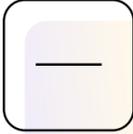
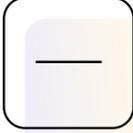
- Doesn't assign any credit to other interactions across the customer journey.
- Makes it difficult to understand the value of your whole omnichannel marketing efforts.

However, it doesn't assign credit for conversions to direct traffic. This means if someone has saved your website URL to make a purchase, the model won't assign credit to that conversion, even if that happened after a direct session. Instead, it'll attribute credit to the previous step in the journey.

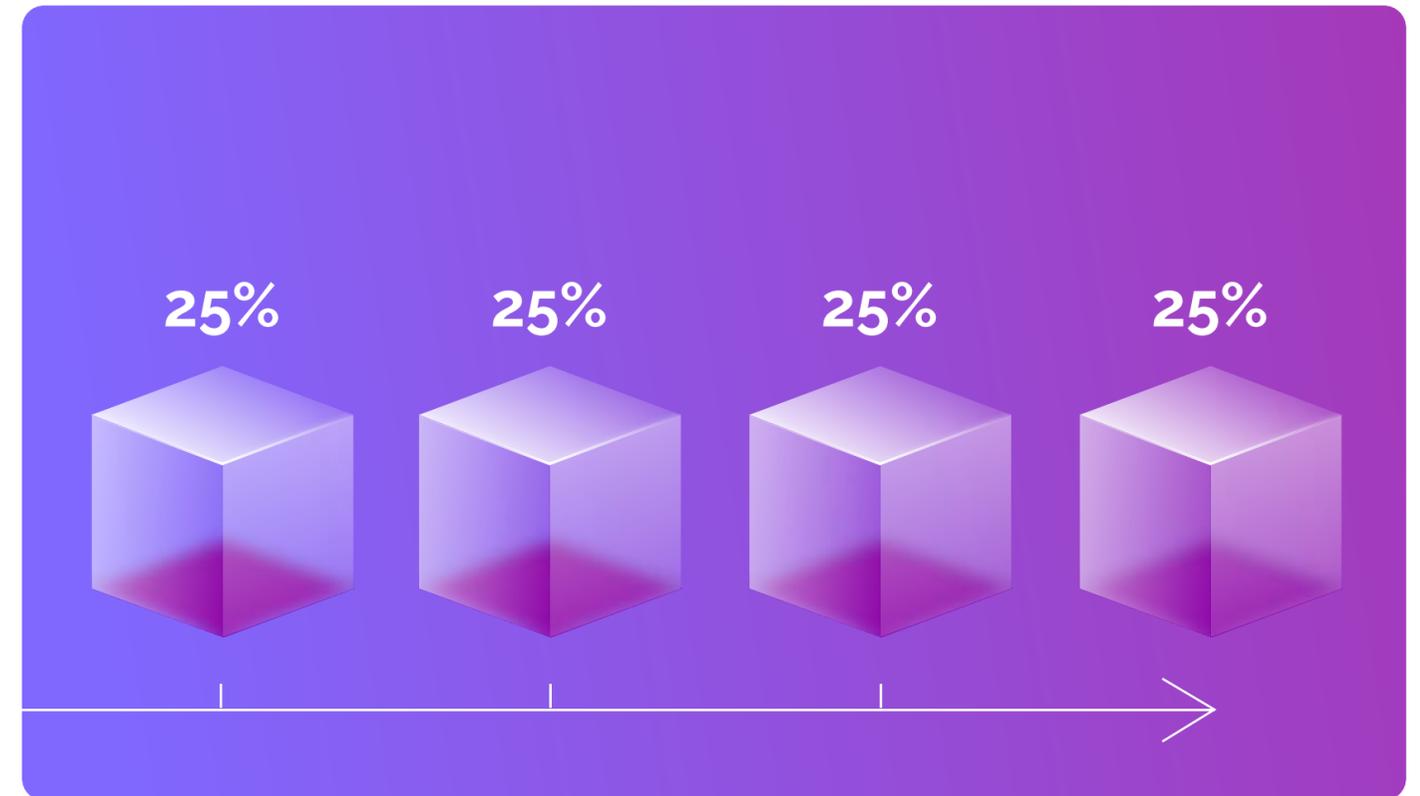
Linear attribution model

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-  The easiest multi-touch model to implement.
-  Demonstrates the value of every touchpoint across the omnichannel marketing strategy.
-  It's a balanced model that encourages touchpoints aimed at both awareness and conversions.
-  It's rare for every interaction to be equally important in driving conversion.
-  The model leads marketers to overestimate the wrong channels and underinvest in the right ones.

The linear model might be an entry point to a more advanced model. Accumulated data allows you to investigate touches that occur most frequently for a group of successful prospects. Then, you can shift your attribution model toward assigning more credit to more successful touchpoints.



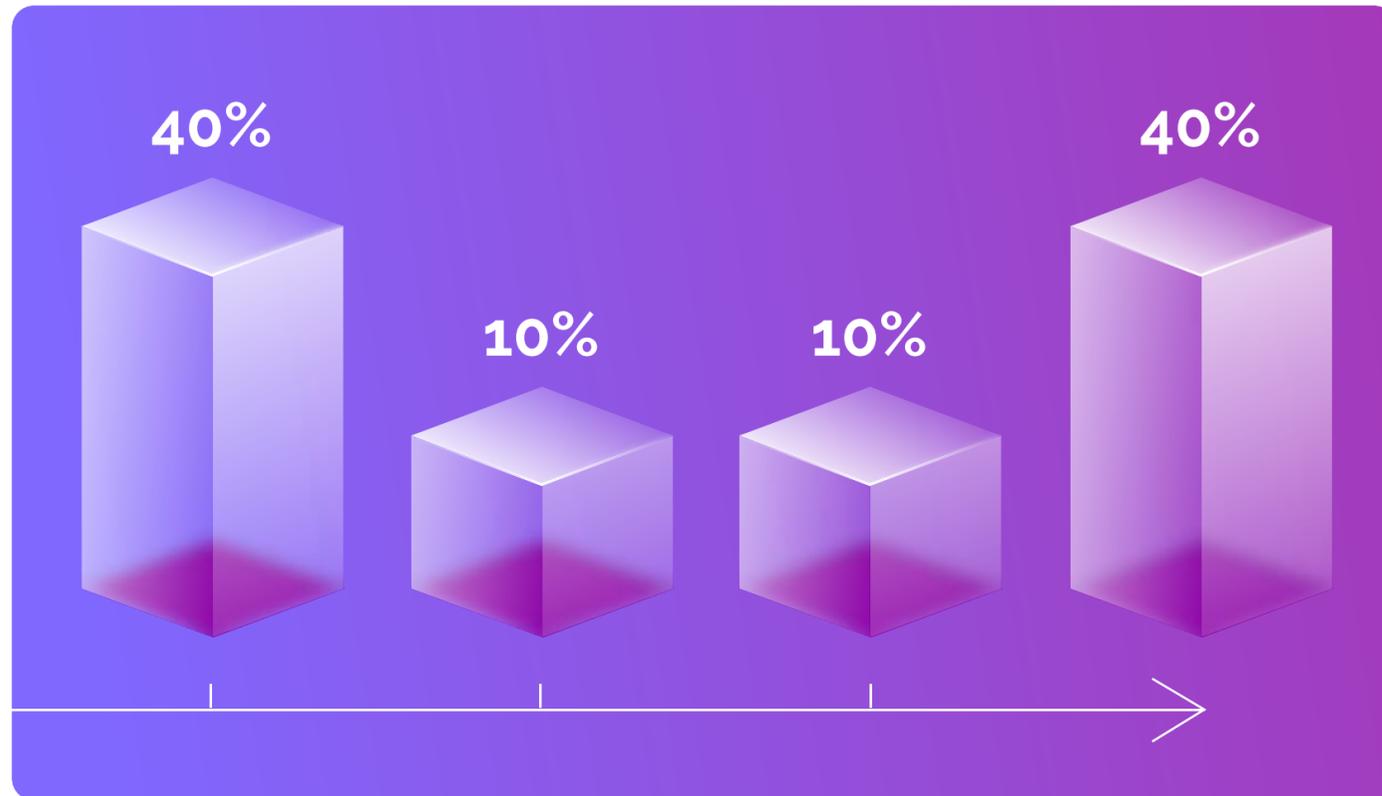
The linear attribution model is the first model on our list that assigns credit to interactions between first and last touches.

Unlike all previous models, linear attribution takes into account all of the touchpoints across the journey. It distributes credit equally between all campaigns or channels. For example, if your omnichannel strategy consists of four different channels, each one of them gets 25% credit.

Position-based attribution model

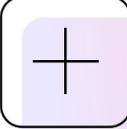
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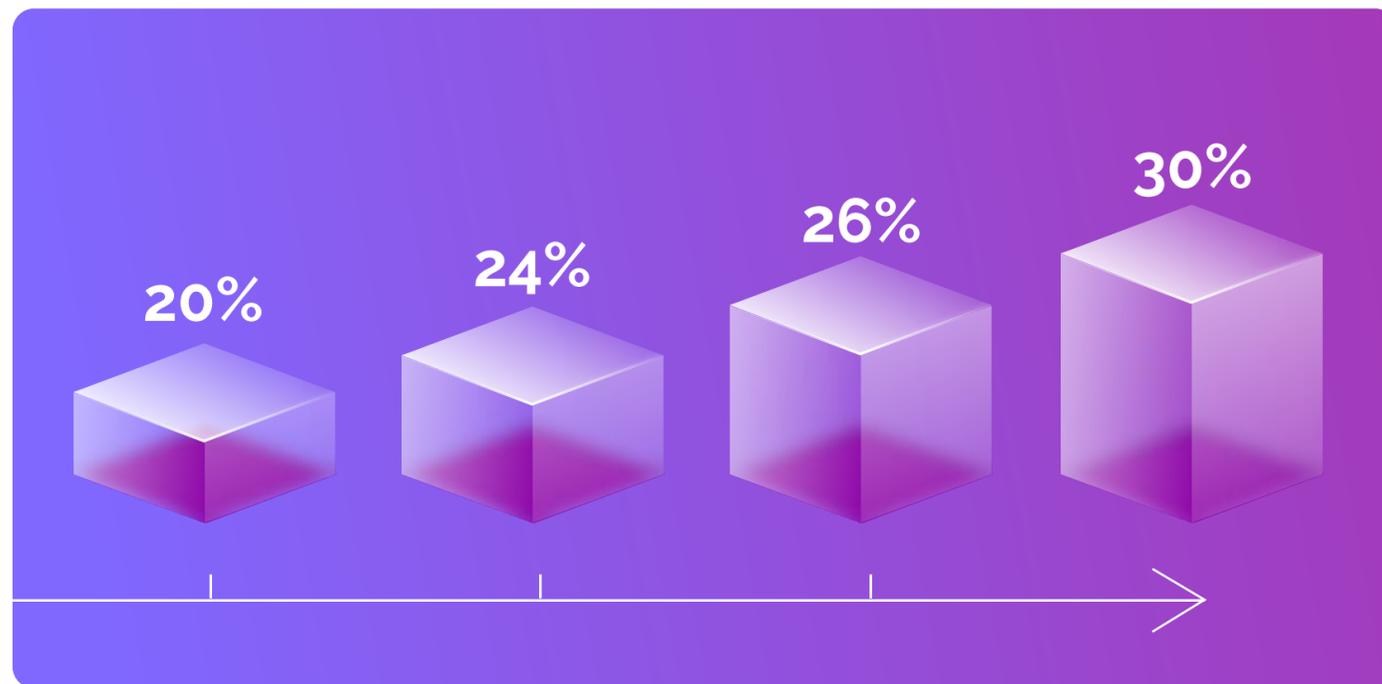
The position-based (also known as U-shaped) attribution model considers the first and last interactions the most important within the customer journey. These two touchpoints get a fixed credit for every conversion.

The position-based model also has a variation that is slightly different from the original.

-  Allocates credit to all touchpoints
-  Allows you to optimize for the first and last interactions.
-  Not only shows that all channels are important but also shows you the touchpoints to focus on.
-  A good fit for companies with longer sales cycles.
-  The model doesn't dive deep into interactions that happen in the middle of the funnel.
-  Assigning too much credit to first and last interactions might be misleading.

For example, when this model is used in Google Analytics, it assigns 40% to the first and last interactions and splits the remaining 20% evenly among all other touchpoints.

Position decay attribution model



Position decay is a simpler version of the time decay model.

The position decay model assigns credit to touchpoints based on their proximity to the conversion. The closer the interaction is to a conversion - the more credit it gets.

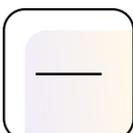
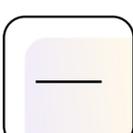
The model can also be reversed if you want to assign more credit to acquisition sources. In this way, the touches closest to the acquisition source get more credit.

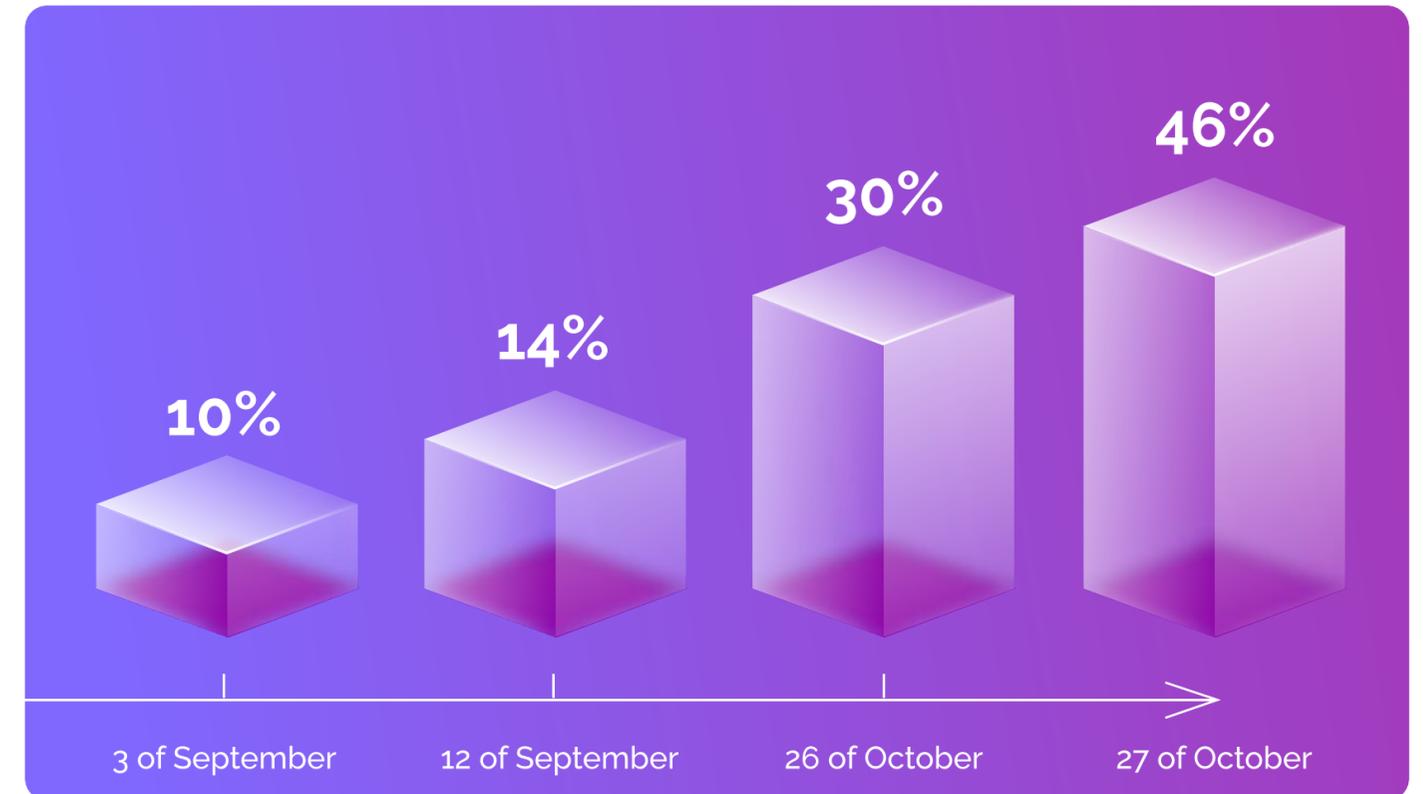
- + Universal model
- + Can be used to identify both acquisition and conversion channels.
- + Provides insights into several channels prior to the purchase.
- A position-based approach doesn't take into account other factors (e.g., time).
- Should be combined with other models to get a more holistic picture of the customer journey.

Time decay attribution model

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-  The time variable shows the actual value of the various interactions.
-  The model takes every step into consideration.
-  It assigns the most value to the interaction that resulted in a conversion.
-  The touches closest to the conversion are considered to be the most valuable.
-  Effective for businesses that rely on multiple interactions to build trust and educate the client about the product.
-  A rather one-sided model.
-  Marketers have to choose between touchpoints closest to the conversion or acquisition touchpoints.
-  It may also assign lower credit to highly influential touches that happened very early or very late in the customer journey.



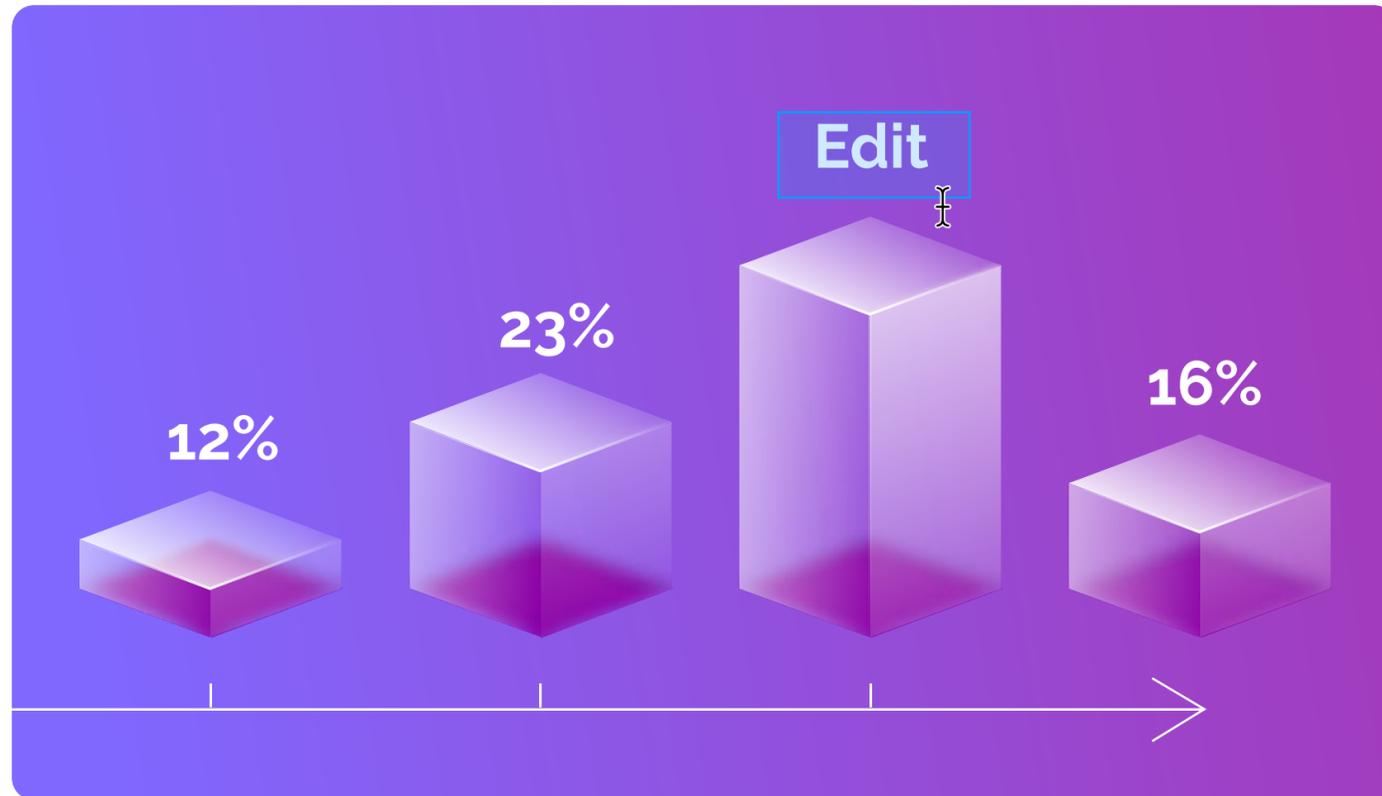
Time decay attribution assigns credit to touchpoints based on their timespan proximity to the conversion. The closer the interaction is to the conversion, the more credit it gets.

Highly influential touches are the ones that most frequently occur throughout the customer journey of your successful customers.

Custom attribution model

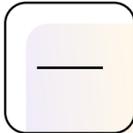
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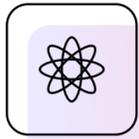
Custom attribution models allow marketers to assign custom weights to different touches based on different hypotheses, machine learning algorithms, and insights.

This is one of the most flexible attribution models, and it provides plenty of opportunities for marketing teams.

-  Allows fully custom values to be assigned.
-  The model is useful in the A/B tests of different campaigns and touchpoints.
-  Allows models to be built upon complex algorithms.
-  Requires marketers to adapt the model according to the campaign goals.
-  Requires technical knowledge to implement data algorithms within the model.

Set up revenue attribution with Improvado¹⁸

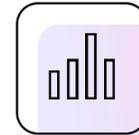
Improvado is a full-blown marketing and sales data stack that helps marketing leaders make sense out of all their data—it automatically extracts data from 300+ sources and makes it business-ready.



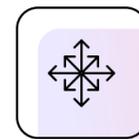
Improvado joins data across numerous CRM systems, marketing automation tools, ad platforms, and more to build a comprehensive picture of your marketing performance and help you identify the most revenue-driving channels.



With its Professional Services offering, Improvado can set up any attribution model for companies across different industries based on their use case and business requirements.



Moreover, Improvado handles all types of multi-touch attribution models helping businesses with longer sales cycles dive deeper into analytics, track continuous purchases understand customers' decision-making logic, and identify the most influential touchpoints across the customer journey.



Improvado's attribution solution does much more than assign credit to different touchpoints. It uses a complex approach where tracking tools, data extraction algorithms, data hygiene, and other practices intertwine to form comprehensive marketing reports and dashboards.



In addition to the classic attribution models and a suite of marketing data processing tools, Improvado offers custom solutions for revenue attribution.

Cookieless attribution

Today's attribution mostly relies on cookies and third-party data. Since Google promises to ban all third-party cookies by 2024, marketers have to implement alternative solutions to comply with upcoming privacy regulations.

With its help, the platform assigns unique IDs to visitors based on data such as:

- Screen resolution
- Preferred color schemes
- The browser's current version
- The current JavaScript version
- Supported file formats
- The browser language
- Preferred font families
- And many other characteristics

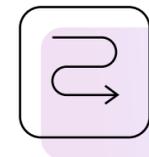
By taking tens of parameters into account, you can build a visitor profile that will help you understand your audience without collecting restricted data.

Improvado has developed a cookieless attribution approach that enables marketers to identify and track users without third-party cookies.

Why cookieless attribution matters:



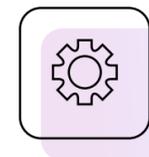
A privacy-first model will be viable years from now since it doesn't rely on cookies.



It allows for more precise customer journey tracking since Improvado's engineers test different approaches and use the right one for your use case.

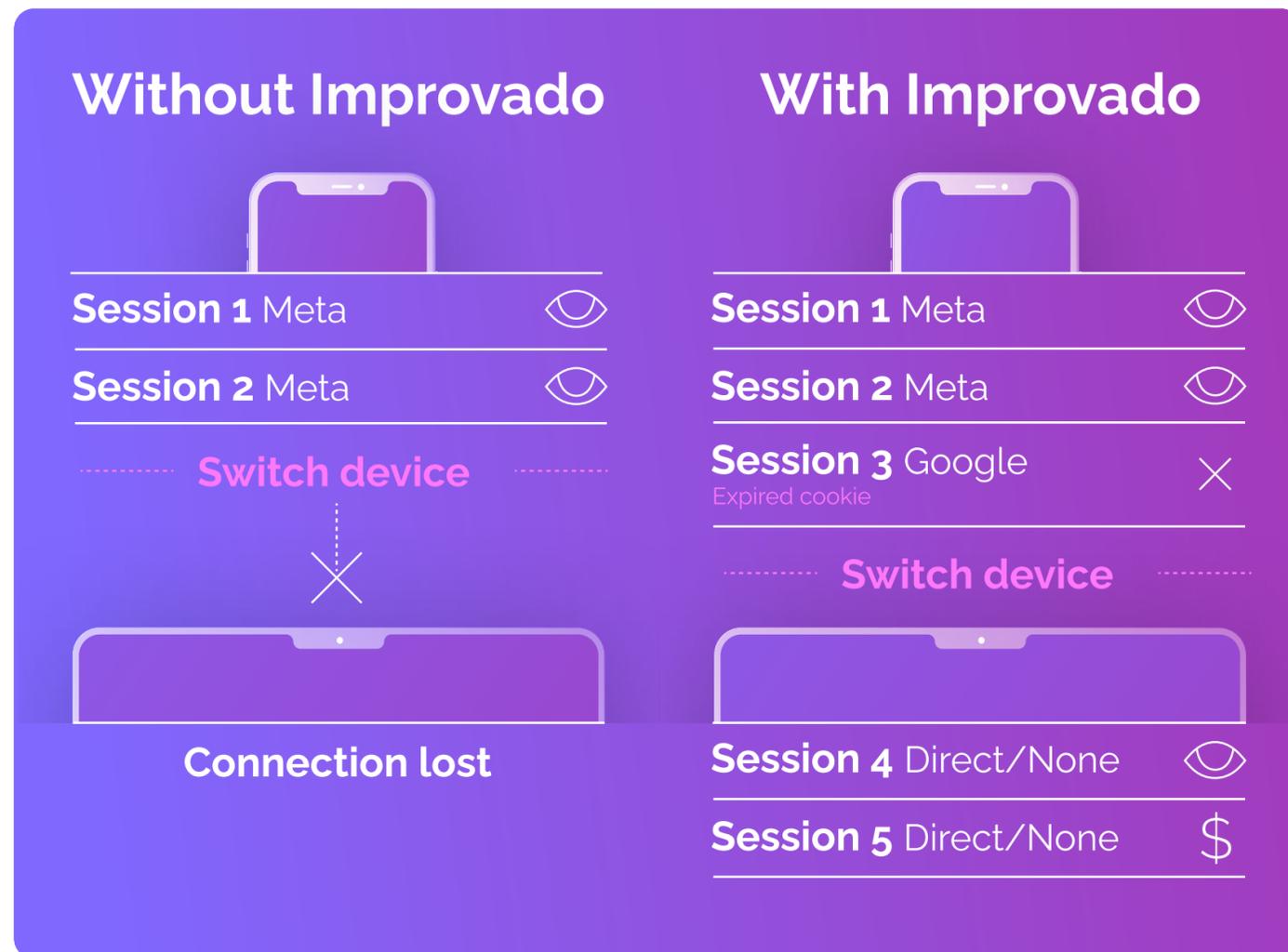


Companies avoid the headaches associated with ever-changing privacy regulations.



The attribution is based on precise data gathered from many sources combined with Improvado's identity graph.

Cross-device tracking



Companies can build customer profiles and identify prospects' preferences due to the web fingerprinting technology used in Improvado's approach.

The model shows marketers and analysts how prospects interact with their channels even when they switch devices.

Improvado combines data from different channels to simplify the identification of prospects. Here are the main channels we use:

- Advertising platforms (e.g., Facebook Ads)
- Analytics platforms (e.g., Adobe Analytics)
- Fingerprinting solutions (e.g., FingerprintJS)
- CRM and sales solutions (e.g., Shopify)

In addition to privacy, Improvado's custom attribution approach allows for higher tracking accuracy than other attribution techniques.

Utilizing data from various sources makes it easier to identify prospects' preferences and track them even if they switch devices.

Identity graph

Another feature of Improvado's attribution is the identity graph.

The identity graph is a database that stitches all customer records from different data sources to create a universal customer profile.

Accurate tracking

The identity graph allows marketers to use all possible sources to recreate a customer journey. Instead of building your analytics solely on cookies or analytics platforms, you can combine various insights to find new ways to identify customers at each stage of the customer journey.

Flexible solution

An identity graph is a flexible solution that can be adapted for any attribution model you might need. Therefore, you can test different models in the shortest terms and find the one that works best for you.

Build revenue attribution and make better business decisions with Improvado.



Jeff Lee

Head of Social, Media Buy,
Influencer & Marketing Data at ASUS

"Improvado helped us gain full control over our marketing data globally. Improvado saves us about 90 hours per week and allows us to focus on data analysis, rather than routine data aggregation, normalization, and formatting."



Improvado is a full-blown marketing and sales data stack that helps marketing leaders make sense out of all the data. Improvado automatically extracts data from [300+ sources](#) and makes it business-ready.

With its [Professional Services](#) arm, Improvado sets up attribution for companies from scratch. Single-touch models, multi-touch models, cookieless—you name it! Improvado connects data across numerous CRM systems, marketing automation tools, ad platforms, and more to build a holistic picture of your marketing efforts and help you identify the channels that drive the most revenue.

Improvado can streamline your marketing analytics and save you precious resources to uncover deeper insights and hit ambitious revenue goals.

Get a 360-degree view of your marketing efforts with Improvado

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