Multichannel Attribution
Measuring Marketing ROI in the Digital Era

High performance. Delivered.
Digital technologies have empowered today’s consumers to get what they want, when they want and where they want. So while consumers may have few problems moving from one media channel to another and from one device to another, business is having a hard time keeping up with them.

Anticipating the next move in a consumer’s journey to conversion, and measuring every interaction across channels, is a significant challenge. Pervasive methods in use today for associating consumer behavior with marketing investment fall short of capturing the contributions from multiple channels on a specific path to purchase. As marketing leaders shift budgets from channel to channel, new approaches are required that provide better insight and ultimately drive smarter budget allocation and improved marketing return on investment (MROI).

A typical consumer journey is anything but linear, single channel or reliant upon one device. It may start in front of the TV and progress toward a tablet, then switch to a smart phone, make pit stops at a product website followed by a social network site, for sharing news about the product, and end with a purchase at a store. See consumer journey scenario.

In order to serve this channel-savvy, highly mobile, multidevice-happy consumer, chief marketing officers (CMOs) have their work cut out for them. These CMOs need to have an accurate understanding of consumers— their intentions, impressions of products and services and their behavior; to pinpoint exactly which marketing channels—online or offline—are yielding maximum MROI.

For example, knowing the impact of paid search engine marketing (SEM), online display media, natural search marketing based on search engine optimization (SEO) or affiliate partners, on both online and offline customer behavior. Or understanding how email, mobile-optimized websites, online video ads, social media, mobile display ads and the like, work together with offline media. For that, CMOs must have accurate answers to questions such as:

• How did a particular sale happen?
• Who should get the credit for it?
• How much credit should be attributed to each consumer interaction across channels, and on what basis?
• How should the investment be apportioned across channels?

These questions have become the subject of some lively discussions on direct, last action or last click versus multichannel attribution.
1. Dave is sitting with a tablet watching a show on TV. During one of the ad breaks he sees a discount commercial for mobile phones.

2. Dave does a Google Search on his tablet, which pops up a paid search ad. He clicks on the ad and goes to the phone manufacturers website, which lists not only additional discounts and insurance plans, but also has links to reviews. Dave sends the link to his email address for access later.

3. On his way to work Dave opens the email on his smart phone and forwards the link to his friend, Sarah, who is looking for a good deal on a mobile phone. Sarah goes to the phone manufacturers website on her laptop, reads reviews, then drives to the nearest store to purchase the smart phone.

4. Later, Sarah logs into Facebook on her new phone and shares her news about the purchase with her friends. Some friends search for the phone retailer and make a web purchase. Some put the item in the cart then abandon the digital journey – preferring to drive to their nearest store to try the phone and complete the purchase.
Last action dilemma

One of the biggest problems today is that, while consumers operate in a multichannel world, the metrics of their interactions are still siloed. That is, we have metrics for measuring consumer activity in each channel but not for measuring the entire consumer journey in an integrated manner. The need to capture and analyze this journey as it takes place across both offline and online channels has led to the emergence of various attribution models and approaches.

For the most part, direct attribution has been a popular approach for analyzing consumer data. Not only because alternative approaches are just beginning to emerge, but also because direct attribution is simple to implement. It calls for attributing conversion (or purchase) to the “last action,” such as a mouse click or direct mail response.

Lately, however, it is being widely acknowledged within the industry that attributing the cause of a conversion primarily to the last action often leads to overattribution of consumer response to that action, ignoring other influences, such as a TV advertisement or online paid search campaign. This is resulting in the emergence of econometric MROI analyses which focus on, measure, and analyze historical data of all known interactions over a specific period of time to in order to derive multichannel attribution.

Regardless of which approach one embraces, it is absolutely clear that unless consumer data is captured in real-time, across channels and devices, any exercise that gives credit to consumer action per specific channel or device may lead to an inaccurate interpretation of results and thereby to undesirable business decisions.
Multichannel attribution

Analyzing consumer behavior is getting more complex, not only because of the sheer volume of data, but also because that data comes from multiple sources, including consumer touchpoints, data providers, and advertisers. So how to accurately measure and interpret consumer data?

Though one reliable approach for measuring consumer data that is good for all situations has yet to emerge, there are a number of multichannel attribution approaches that are yielding positive results. There are three fundamental aspects to successful multichannel attribution.

**Big data mindset**

Data needs to be gathered and analyzed from across consumer touchpoints. To achieve that goal, analytics engines that can process a huge volume of data and drill down to various levels of data granularity are required—a must for understanding both individual behavior and the behavior of a segment of consumers across channels. This requires robust data architectures for enabling systematic consumer data acquisition, processing, population, and reporting, as well as data analytics.

**Dynamic tools and capability**

There is no “one-size-fits-all” approach to successful multichannel attribution. The consumer data landscape and business environment are highly complex and ever-changing. Therefore, high performance, dynamic tools and capability are vital to success. The techniques required may include:

- **Clustering**: Group customers with similar traits and profiles, and use clustering to identify homogeneous patterns. Each attribute within each cluster is allocated a specific weight to identify its relative importance to the cluster, and across clusters. This is not a once-and-done exercise, but a technique that helps dynamically identify trends and similarities in customer behavior.

- **Logistic Regression**: Isolate and measure the impact of the multitude of media, marketing and service influences on customer behavior. Through scenario planning, optimize future activities to drive sales, reduce churn and improve customer satisfaction.

- **Neural Networks**: Leverage machine learning algorithms that use complex, nonlinear mapping functions for estimation and classification. Neural networks prove their worth in multichannel attribution where there is often a lack of consistent historical information or an absence of a theoretical framework around causal relationships among variables.

**Integrated analytics**

While multichannel attribution can yield hitherto unobtainable levels of granularity, it is not a panacea. It should be aligned to, and integrated with, other analytics techniques as and when needed. For example, if analytic processes are already in place focusing on both media and marketing mix, as well as investment optimization, then adopting an integrated analytics approach is a powerful combination. This type of approach will allow companies to apply marketing mix modelling to understand the marketing effectiveness at a regional level, and conduct multichannel attribution analysis to dive deeper into the data for insights surrounding media, customer experience and customer behavior.
Comparison of Direct and Multichannel Attribution – an example

To demonstrate the difference between direct and multichannel attribution, consider for a moment the following example. A consumer sees a TV ad that results in him wanting to purchase a specific product. He goes online to make the purchase and decides to use his Google search engine to find the product URL. His Google search returns a paid link promoting the product which the consumer clicks on to take him to the site where he makes a purchase.

Taking a direct attribution approach, the Google paid search ad will be identified as the activity that influenced the sale. The multichannel attribution approach however, considers the influence of both the TV and the Google paid search ads.

See table below.

<table>
<thead>
<tr>
<th>Summary of approach</th>
<th>Direct attribution</th>
<th>Multichannel attribution</th>
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<tbody>
<tr>
<td>Uses the information provided at point of purchase, whereby a click or entry of a code indicates where to attribute the purchase or connection.</td>
<td>Recognizes that multiple inputs drive a purchase and quantifies, or attributes, value to each input.</td>
<td></td>
</tr>
<tr>
<td>Scenario results</td>
<td>The purchase or connection is attributed to google keyword search.</td>
<td>The purchase or connection would likely be attributed to both the tv and google paid search advertisements, and in a way which allows the diminishing return on increasing investment in each activity to be captured—much more reflective of true customer behavior.</td>
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The direct attribution approach has the advantage of being simple to calculate, providing top line metrics for marketers to justify investment and manage costs. However, direct attribution also leads to linear thinking—the assumption that everything has a fixed cost per connection or click, and if marketing investment is doubled, the consumer response rate will also double. In practice, there is significant variation in effective cost per response, as certain activities drive base consumer behavior in a statistical sample, while others drive incremental consumer behavior.

The multichannel attribution approach provides greater insight into the data influencing the purchase or connection. In this example, attributing the influence to the TV ad on the purchase will impact MROI calculations of both the TV and Google paid search activities. Instead of taking the decision to cut TV advertising and direct more funds to paid search, which could be the result of the direct attribution approach, the value of TV advertising is recognized when considering future investment and funds are not redirected in such a “black and white” response. Multichannel attribution enables optimization of forward looking budgets, identification of cost savings and improved MROI.
Driving Consumer Relevance
The channel-savvy, highly mobile, multidevice-happy consumer has created a new playing field for marketing organizations. Today, the effectiveness of marketing strategy is increasingly measured in terms of its relevance to the intent and changing preferences of consumers across channels and touchpoints—at both macro and micro levels of granularity.1

As the practice of multichannel attribution gains popularity and attains a certain level of maturity, companies will be able to "test the water" for new products and services, learn from early consumer responses, and make the necessary changes before launching them to a wider audience. As more attention is focused on the last-action dilemma, we are likely to see multichannel attribution becoming a key component of not just marketing strategy, but of a company's overall business strategy.

To learn more about developing a multichannel attribution approach, contact:
Conor McGovern
conor.mcgovern@accenture.com

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