



Improving marketing efficiency through incremental measurement

Finding the direct links between marketing
spending and sales results

WHITE PAPER

Abstract

There are many ways to measure marketing impact — click-throughs, conversions, impressions — and also many high-tech tools available to attribute marketing effectiveness to specific channels and tactics. But even sophisticated measurement systems can rely on assumptions and formulas that fail to measure actual bottom-line value.

Incremental measurement identifies the true sales impact of specific marketing interactions. It acts as a corrective lens for some of the distortions inherent in traditional measurement methods such as multi-touch attribution and media mix modeling.

This paper looks at how controlled experiments can be used to refine results produced by other measurement tools, and can become part of an incremental measurement process that continually generates new insights and more accurate metrics. A case study from a major U.S. retailer illustrates the enormously improved accuracy and efficiency that this process unlocks.

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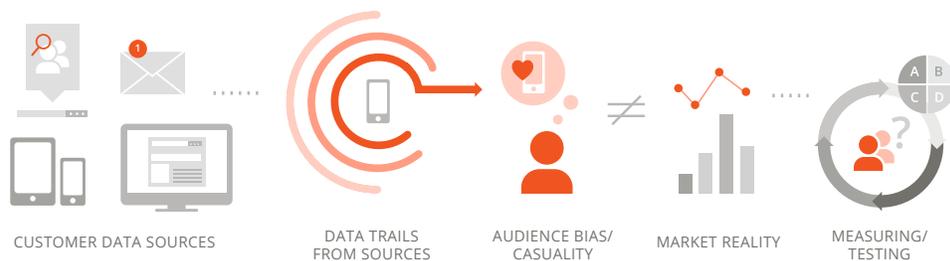
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What incrementality is and why it matters

Today's marketing environment is an arms race in which a company's marketing resources are continually outpaced by its customers' increasingly complex and fragmented journeys to purchase. Traveling a huge variety of paths, these customers use multiple devices (often at the same time), behave differently at different points in their customer lifecycles, and leave data trails that are incredibly challenging to track. To keep up, companies increase their investments in tools intended to more quickly and precisely measure the effect of ads, campaigns, sites, and promotions, and then use that data to optimize every marketing dollar they spend.

Despite the impressive technology and masses of analysis produced by these tools, they can also be plagued by inconsistent results, self-fulfilling predictions, blind spots, and difficulties in assigning attribution. Many of these unknowns can be traced back to a few basic questions: are these tools measuring correlation or causation when they study customer interactions with marketing along the path to purchase? Or more simply: did the marketing provide incremental value, and which tactics provided the most?

In Ovative's experience, even the most sophisticated measurement models fall short when their assumptions are tested for incremental performance. We frequently work with clients whose problem is not a shortage of data or analysis, but rather belief. Whether questioning the seemingly glowing results of paid search or being skeptical of the "underperformance" of a social campaign, they're inevitably interested in how their measurement models are identifying the inflection points where customers' purchase decisions are most profoundly influenced.



Measuring incrementality is complex in part because to be successful at it, one must attempt to identify causality. For example, if a customer searches for "iPhone," then travels via a paid search link to the Apple site and makes a purchase, the sale would be credited (either entirely or in part, depending on the attribution model) to paid search. *But this attribution doesn't factor in the possibility that people searching for "iPhone" may have already made their purchase decision — the true impetus for the sale may have been something that happened before the search.*

Additionally, these searching customers may have an existing preference for purchasing Apple products directly from Apple — otherwise known as “audience bias.” If these shoppers are likely to convert organically with or without their paid search interaction, then their purchase behavior is not accurately measured by typical measurement tools.



In other words, even though this search-to-purchase interaction is identified as a positive result by the measurement model, the resulting measurement may overstate the actual influence of paid search on the purchase decision. A 2017 Forrester study on marketing measurement highlights this gap between measurement and reality: “Marketers obsess over click-through rates, assuming that customers who click have high purchase intent. But a myopic focus on click rates that are consistently well below 1% leads many marketers to dismiss the other 99% of marketing spending.”¹

Misleading measurement can result in overspending in channels that are better at delivering data than they are at producing financial results. Getting closer to the true bottom-line influence of each interaction is the task of incrementality.

With incrementality, the nature of the questions you can ask about marketing changes.

WITHOUT INCREMENTALITY

What percentage of sales can be attributed to paid search?

USING INCREMENTALITY

Which interactions with paid search are from existing customers who would have purchased anyway?

WITHOUT INCREMENTALITY

What amount of revenue was influenced by a display ad click or impression?

USING INCREMENTALITY

Will marginal return on investment be greater if customers interact with display ads, direct mail, or both?

The promise and challenges of incremental measurement

Despite its complexity, incrementality has become a topic of increasing interest because of the growth in digital advertising, where in theory, real time data access makes performance almost instantly measurable. In addition, the growing complexity of the consumer journey puts pressure on traditional marketing measurement methods — especially their ability to measure causality. Marketers have always sought to measure the independent, positive contribution each element of the marketing effort is having on consumer purchases, but they've struggled to put together the right combination of measurement tools to isolate individual impacts in order to optimize their marketing investments.



If incrementality is so important, one might wonder why it's not already factored in to most marketing metrics. One reason is that measuring it isn't easy, and it can be even more challenging on an enterprise level that incorporates both online and offline measurement and a variety of customer types. Expanding the paid search example above to other marketing and shopping channels can produce dizzying uncertainty about the accuracy of simpler measurement like last-click attribution, and can even cast doubt on more comprehensive media mix models.

Of course, incrementality is not a cure-all for marketing programs — baseline media strategy and operations must be sound to produce good recommendations and results from an incremental testing methodology. But Ovative's experience has shown that the additional accuracy offered by incremental testing can deliver significant improvements in ROI for an organization's marketing spending.

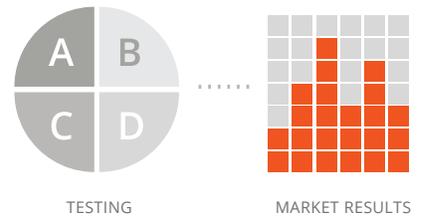
Redefining the measurement process

An incremental measurement process can be broken down into three distinct steps, with each step building on its predecessor.

Step 1:
Use available measurement tools (both basic and advanced) to analyze your data, find gaps, and identify questions about the performance of specific channels, campaigns, or ads.



Step 2:
Deploy experimentation (testing) to measure the results of actual in-market tactic changes, rather than relying on history or models that predict the future.



Step 3:
Use the insights gained from step 2 to refine your measurement models (step 1), and also to help identify the subject of the next experiment.



What's unique about controlled experiments

Tools like media mix modeling and multi-touch attribution are more precise than simple last-click attribution and platform data metrics, but are limited in their ability to control for customer types, non-marketing business factors like promotions and pricing, and non-business factors including competitive pressure and weather. While each method of measurement has strengths and weaknesses, controlled experiments have the unique capacity to determine causality.

As the table below illustrates, these insights are unique to controlled experiments, and set this method of measurement apart from traditional models.

MEASUREMENT TOOL	TRACKS ASSOCIATED METRICS	MEASURES +/- CHANGE	ISOLATES INFLUENCES	MEASURES CASUALTY	PERSISTENT CAUSALITY MEASURE
PLATFORM DATA	●	●			
ATTRIBUTION-LAST CLICK	●	●			
DATA-DRIVEN ATTRIBUTION	●	●			
MEDIA MIX MODELING	●	●	●		
CONTROLLED EXPERIMENTS	●	●	●	●	

As the “Persistent Causality” column suggests, controlled experiments measure causal relationships within the timeframe of the experiment, but these links can shift over time as market conditions, technology and customer preferences change. Measuring the persistence of causality requires ongoing testing to confirm or challenge the results of past tests. And while testing is the key to determining causality, other tools still play important roles in optimizing marketing budgets and understanding incrementality on an enterprise level.

In a 2016 survey of analytics and measurement professionals, Forrester found that 57% of respondents use attribution models and 53% use marketing mix modeling to measure marketing performance, indicating no single model is dominant.²

MEASUREMENT TOOLS’ STRENGTHS AND WEAKNESSES

TRANSACTION	MEDIA MIX MODELING	MARKETING ATTRIBUTION	TESTING
REAL-TIME OBJECTIVE TRUTH	COMPREHENSIVE	ACTIONABLE	INCREMENTAL
NO CONTEXT	HIGH-LEVEL	LIMITED SCOPE	DIFFICULT TO SCALE

Marketing attribution can provide real-time performance feedback but is limited in scope, and also by the accuracy of its attribution model. Media mix modeling can incorporate a broader spectrum of variables, but its longer time frame and lack of granularity makes this information less actionable at a tactical level. Testing enjoys the advantages of low initial investment, fast implementation, rapid feedback and a higher degree of precision than multi-touch models, but requires the additional effort of repeated testing to optimize accuracy.

Some analysts claim experimentation is risky or not scalable, and that pure analytics can deliver an accurate solution on their own. But measurement is about evaluating results based on actions and results — and without testing, the true financial impact of individual elements of your marketing effort will remain uncertain. At Ovative, experience has repeatedly shown that testing drives positive ROI through either growth or cost savings, and that these gains typically far outweigh the expense and effort required to do so.

For more insight into the different forms of marketing measurement, see our white paper *Marketing Measurement System Alignment: Unlocking Real-Time Actionable Insights*, available at ovative.com/whitepaper.

The incrementality measurement process — a case study

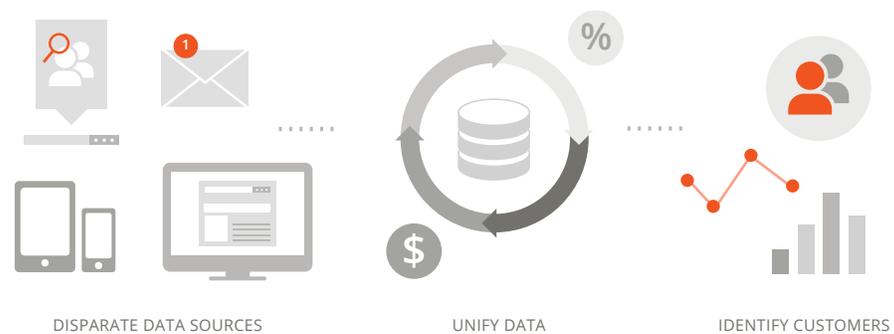
A fashion retailer with both an ecommerce and brick-and-mortar presence was measuring its online marketing effectiveness based on only its ecommerce sales, without attributing any store sales to its online campaigns. While it seemed likely that the company was underestimating the offline impact of their online spend, it had no clear path to measuring all its digital touch points and their incremental impact on enterprise sales.

Ovative helped this client develop and execute a process for measuring incrementality that would deliver millions of dollars in incremental revenue each year without dramatically changing the overall marketing budget. This case study will walk through the steps of creating the process and designing and executing the testing phase of measurement. While some aspects of the process described here are unique to this company, many are also relevant to organizations in other industries and market situations.

Building a foundation with unified data

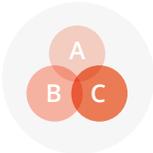
Measuring incrementality down to the channel/tactic level requires data from a range of sources — including digital pixel, CRM, transaction/POS and site behavior — all unified in a single enterprise-level dataset.

For this client, Ovative deployed its omnichannel pixel across all offsite media and website pages. This provided a wealth of data about online activity, but no details of the store experience.



Building this comprehensive data foundation was the essential first step toward a measurement model that could be refined and improved through controlled testing. But first, the retailer needed a measurement tool to analyze the rich data it now possessed.

Step 1: Use data-driven attribution to identify opportunities



For this client, a data-driven attribution model was used to analyze the enterprise dataset. This model attributed impact to both online and in-store sales, treated new and existing customers differently, and redefined how the client measured impact at an enterprise level.

This model provided a detailed view of the retailer’s return on ad spend (ROAS) that could now be broken down by ecommerce and store sales. Analyzing the data collected in step 1, this model identified significant additional value in offline sales attributed to online interactions.

PERFORMANCE OF DIGITAL CHANNELS	ECOMM ROAS	INDEX TO AVG.	STORE ROAS	INDEX TO AVG.	ENTERPRISE ROAS	INDEX TO AVG.
PAID SEARCH NON-BRAND	\$0.64	± 0.6	\$3.15	± 1.1	\$3.79	± 1.0
PRODUCT LISTING ADS	\$0.72	± 0.7	\$2.03	± 0.7	\$2.75	± 0.7
PAID SOCIAL	\$1.77	± 1.7	\$3.14	± 1.1	\$4.92	± 1.3
AVERAGE	\$1.04	1.0	\$2.77	1.0	\$3.82	1.0

Reviewing the three top digital channels revealed some valuable insights:

- Non-branded paid search appeared unprofitable for online-only ROAS (\$0.64), but attributing a portion of store sales increased its ROAS to an estimated 5.9X for the enterprise. This indicated a dramatic undervaluation of the impact of this channel on offline purchases.
- Non-branded paid search leaps well above product listing ads when store impact is included (from \$0.64 to \$3.79). A more accurate valuation of several keywords that drive digital exploration prior to store visits increased the precision of this measurement.

Attribution models like these help clients see the results of their ad spending in a more holistic way and optimize their spending accordingly. The weakness of attribution models is that they assume very few other market influencers exist when crediting value. While attribution is critical for driving granular optimization and formulating test hypotheses, it still does not account for causality. Fortunately, once this framework for attribution analysis has been built, the groundwork is in place to test whether the attribution model results are truly incremental.

Step 2: Deploy experimentation to measure incrementality

The retailer now had an attribution model capable of producing powerful insights, but often these insights led to further questions. How accurate was the attribution model? Were these channels really driving incremental revenue? Questions like these invited the use of testing to confirm or disprove some of the assumptions and hypotheses underlying the attribution model.



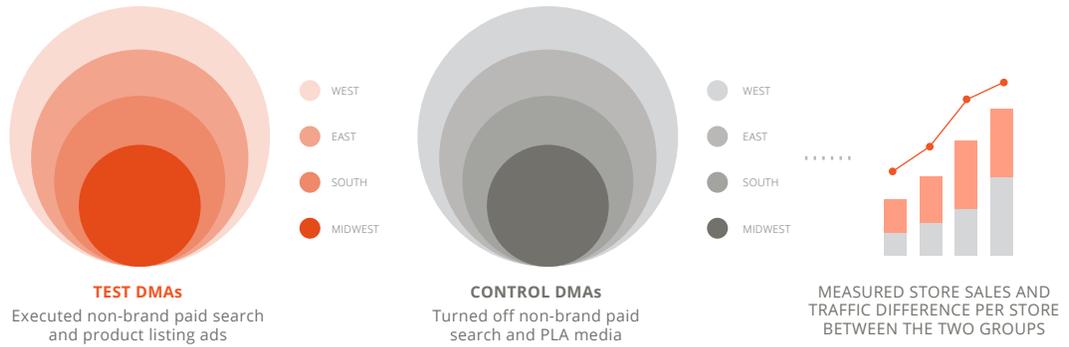
Each test began with a hypothesis that emerged from the insights produced by the attribution model applied to their enterprise dataset. The details of two representative tests can help illustrate how we use multiple measurement tools in combination — and specifically, how testing can be used to refine measurements and identify direct causal links between marketing interactions and sales.

Test 1: Non-branded search and PLA incrementality

The first hypothesis was that *non-branded paid search and product listing ads (PLAs) drove incremental traffic and sales online and in-store with sales results not fully represented in the attribution model.*

The test segmented each of the retailers' stores into test and control designated market areas (DMAs) in a geography-based market split.

TESTING: NON-BRANDED SEARCH AND PLAs



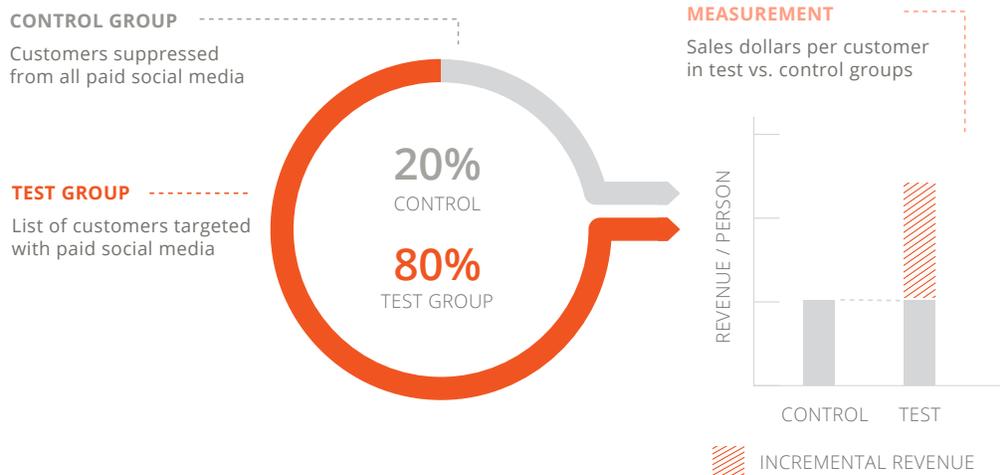
The outcome of the test confirmed the hypothesis that these digital channels drove in-store results and indicated the percentage of sales that were truly incremental.

- Non-branded paid search and PLAs drove 2x more sales in store than they did online.
- 90-100% of attributed revenue was in fact incremental revenue.
- Over 50% of customers were new customers.

Test 2: Paid social retention

The second hypothesis was that *click-based measurement was undervaluing the impact of paid social retention campaigns' ability to drive incremental revenue*. This test was designed as a customer-based holdout that segmented the retailer's customer list into two groups:

TESTING: INCREMENTAL VALUE OF PAID SOCIAL



The test confirmed that the social campaign was driving incremental revenue. It revealed that:

- Click based attribution devalued social channel impact by over 10% for ecommerce
- A majority of incremental store revenue was driven by store-only shoppers
- To drive retention sales, focus should shift more resources to social channels

The insights from these experiments were only possible through controlled testing. They led the client to shift marketing spending once the impact of online marketing on in-store sales (incompletely captured by their attribution model) was better understood. Even though these store-only shoppers weren't being measured by the traditional ecommerce attribution model, the incremental store revenue driven by online interactions was significant. In addition, the incremental value revealed through the paid social retention test prompted further testing to compare the impact of costly direct mail to the results from less expensive social channels.

Step 3: Refine measurement and repeat the testing process



The tests described above provided valuable contributions to this company's always-on measurement model. The questions they produced resulted in subsequent tests to understand impacts such as what channels and tactics were most effective at retaining omni-channel purchasers, and how multiple tactics across channels perform in concert with each other to drive acquisition. Incremental measurement is a unique tool in the toolkit because of its ability to measure causality and thereby confirm intuitions, dispel myths and improve accuracy and confidence in measurement models. Incremental testing can reveal costly blind spots in an organization's measurement methodology, and point to more efficient allocations of marketing dollars.

What are the pitfalls of not using incrementality?

- Inability to distinguish b/w effective investment and audience bias
- Inaccurate valuation of media channels and tactics
- Misallocated spend across media mix
- Sub-optimized targeting of audiences in each channel

Building a better model

These tests (and others like them) dramatically revised the retailer’s measurement model, added new factors to its baseline media measurement, and changed the way the company allocated marketing spending. By adding an incremental factor to their model, the company was able to view their ROAS more accurately on an enterprise level. In this instance, the client was able to realize over \$18M of annual incremental enterprise value, \$11M of which was in-store incremental revenue that had previously gone unmeasured.

	ECOMM ROAS	INCREMENTAL FACTOR	STORE ROAS	INCREMENTAL FACTOR	ENTERPRISE ROAS	INCREMENTAL FACTOR	INCREMENTAL ROAS
PAID SEARCH NON-BRAND	\$0.64	-10%	\$3.15	-45%	\$3.79	-39%	\$2.32
PRODUCT LISTING ADS	\$0.72	-10%	\$2.03	-58%	\$2.75	-45%	\$1.51
PAID SOCIAL	\$1.77	+10%	\$3.14	-37%	\$4.92	-20%	\$2.92
AVERAGE	\$1.04	+1%	\$2.77	-45%	\$3.82	-32%	\$2.58

Going back to the three-step process for measuring incrementality, the incremental factor included in this table is the factor by which the attribution model metrics are adjusted based on the results of testing. Incremental ROAS then becomes the truest measure of the retailer’s ROAS, based on the combination of data-driven attribution and causal impact.

Measuring incrementality can be a game-changer in how organizations measure the effectiveness of their marketing spending. It builds on measurement models organizations are already using, and its ability to provide a causal link between specific interactions and purchases makes it invaluable in the calculation of true ROAS.



ABOUT OVATIVE/GROUP

When it's critical for marketing and data to work together, Ovative/group offers a unique team of specialists and experts who help clients "wrangle the octopus" of data. We help companies activate their enterprise value through marketing, measurement and technology services.

Ovative provides digital marketing services that drive traffic, acquire customers and increase visibility, as well as omnichannel measurement solutions that provide more holistic insights across all marketing channels and devices.

Ovative clients come from a wide range of industries, including retail, healthcare, education, CPG and hospitality. Clients rely on Ovative to fill a variety of needs, including neutral measurement partner, end-to-end measurement solution provider, marketing optimizer, or experienced advisor.

Contact us at info@ovative.com

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¹ Marketing's Data-Driven Future Demands Unified Measurement. Jim Nail and Tina Moffett, Forrester Research, January 26, 2017.

² Forrester/Burtch Works Q1 2016 global state of Customer analytics online survey.