Multi-touch Attribution & Measuring Your Marketing Halo
Abstract
Marketing through multiple channels is the right move; customers rapidly switch between communication modes, and some segments are more reachable in one channel than in another. However, measuring the interactions between channels—particularly direct response and broad reach—is notoriously difficult even for advanced practitioners.

By integrating best practices in direct response measurement with econometric modeling, marketers can understand how channels drive demand between them—and optimize their mix, even for long-sales cycle, complex products and services.

About MarketBridge
MarketBridge delivers Go-to-Market Science; we provide global enterprise leaders customer-centric, data-driven, research backed strategies that can be quickly implemented and scaled across organizations. Helping Marketing, Sales and CX drive revenue, growth and customer value.
Direct response marketing is compelling because of its inherent measurability—for example, I mail a name, and that name either responds or it doesn’t.

But, measuring effects between direct response channels is challenging, unless call center or web forms are equipped with onerous "where did you hear about us" questions—which are of dubious value.

Measuring interactions with broad-reach marketing is even more challenging, requiring econometric time series analysis to estimate effects.

These challenges result in marketing organizations where each channel is run as an island, making audience-first marketing impossible.

Measure direct response channels directly to determine a baseline non-interaction (siloeed) performance.

Using econometric fixed-effects panel regression, regress each direct response-coded channel as separate dependent variables (in other words, create a system of several regressions, one for each channel).

"Leftover” results can be attributed back to the original channel—and double checked using the term for channel-on-channel (i.e., print-on-print).

Lag effects and non-linear effects can be used to further understand how channels interact over time, and lose effectiveness with increasing volume.
The Evolution and Threat of Siloed Measurement for Multichannel Companies

The Backstory on Channel Proliferation
- Large enterprises developed multiple sales and marketing channels over decades, including a mix of ‘mass’, ‘direct’ and ‘owned’ to reach more buyers

“Channels don’t choose customers—customers choose channels”

The Call for Measurement
- The measurement craze of the 2000s mandated that every channel measure its own ROI individually
- Future funding was directly linked to ability to measure

“If you can’t measure it, it doesn’t exist”

Unintended Consequences
- Better measured channels thrive and less measurable channels atrophy - impeding a desired state of all successfully working together for maximum ROI
- As channels compete for dollars, siloed teams focus on telling their best measurement story, preventing a scientific approach to multi-channel optimization

1990s
2000s
2010s
2020s
Options to Measuring Your Marketing Halo: 
*Marketing Mix Modeling vs. Aggregated and Discrete Multi-Touch Attribution*

<table>
<thead>
<tr>
<th>Characteristic:</th>
<th>Aggregated analytic approaches</th>
<th>Tactical execution insights</th>
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<tbody>
<tr>
<td><strong>Analytic Model:</strong></td>
<td><strong>Marketing Mix Modeling</strong></td>
<td><strong>Aggregated Multi-Touch Attribution</strong></td>
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<tr>
<td><strong>Description:</strong></td>
<td>• The effect of multiple marketing channels on aggregated measures (sales, new users/subscriptions, new opportunities, etc.) over a time period</td>
<td>• The effect of multiple marketing investments on last-touch attributed marketing channels over a time period</td>
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<td><strong>Best Use Case:</strong></td>
<td>• High-level understanding of non-channel specific sales and other response metrics in cross-campaign environment for budgeting and long-term strategic planning</td>
<td>• Understanding marketing halo and how each channel drives attribution to other channels to optimize budget and tactical execution</td>
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*Focus of remaining detail in this Evergreen Framework*
Successful Marketing Halo Analysis for Considered Purchases (Most B2B Companies) Depends on a **Mix** of Direct and Indirect Attribution

### Direct Attribution
Using traditional direct response attribution:

- **Channel A** (e.g. Direct Mail)
  - Direct Responses (i.e. URL, 1-800 #) = 620
  - Stimulus (i.e. number of impressions) = 100,000
  - Direct Response Rate = 0.62%

### Indirect Attribution
Using econometric time series attribution:

- Impact of **Channel B** on **Channel A**
  - 10 M (Stimulus) → 80 Responses

- Impact of **Channel A** on **Channel B**
  - 100,000 (Stimulus) → 45 Responses

### Total Impact:

- **Channel A**:
  - 620 - 80 + 45 = 585

- **Channel B**:
  - 310 - 45 + 80 = 345
Four Key Marketing Halo Measurement Questions You Must Answer

Deliberately addressing these in your modelling, both upfront and in review, will ensure sound and actionable results.

1. Attribution
   Which channels are driving which results—including to other channels and "unattributed"
   - **Goal:** Accurately apportion value delivered from channel stimulus to different stimulus response channels

2. Response Curves
   How does marketing effectiveness change with increasing spend?
   - **Goal:** Estimate how channels lose marginal effectiveness as spending increases

3. Lag Effects
   How long does it take for results to show up?
   - **Goal:** Estimate how long it takes for marketing’s impact to manifest, and how long it lasts post-stimulus

4. Market Context
   How do competitive efforts impact return?
   - **Goal:** Control for the broader market dynamics

Business Decisions Enabled

- Determine ROI of each marketing channel
- Optimize the right dollar-mix of channels
- Understand the optimal timing of marketing stimulus for results
- Evaluate investments in upper-funnel brand marketing against mid-funnel demand generation
Conceptualize **Attribution Pathways for an Aggregate Multi-Touch Attribution**

Hypothese return on marketing investment across channels

DM Response = f(DM, DRTV, etc.)
DRTV Response = f(DM, DRTV, etc.)
etc...

### Background:

- A channel specific stimulus has 'one-way' effects on itself and 'complementary and halo' effects on other channels

### Specifying Your MTA:

- Evaluate your various stimulus and response channels to develop several hypothesized specifications aligned to 'last touch' attributions

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**Note:** all response levels and data are illustrative
Use Appropriate Response Curves to Effectively Inform Budget Optimization

Background:
• Utilizing the appropriate functional form is critical to make budget optimization a reality:
  o Most marketing response curves exhibit ‘decreasing returns to scale’ – i.e. the first $1M spent drives more response than the next $1M

Modeling Diminishing returns:
• Typically a log-log transformation on a panel data set to examine the % change impacts and allow for diminishing returns.
• More complex S-shaped curves are also potentially useful for brand development investments

EXAMPLE: The Blue response curve has a higher coefficient, but the next dollar should be allocated to the Green stimulus given it is lower on its response curve and will have greater return
Account for Diminishing Returns and “Memory” Lag Effects Across Channels

Background:

- Marketing stimulus can have unique ‘memory’ or ‘lag’ effects on responses across channels
  - The overall impact of marketing will be understated if these effects are not controlled for!

Modeling Channel “Memory” effects:

- Review and evaluate the lag structure and patterns by modelling channel specific returns against each stimulus
- Utilize a non-linear optimization to select adstock parameters that are aligned to the channel specific mechanism.

Representative Channel Specific Memory Effects

- DRTV
- Direct Mail (DM)
Demand Generation Activities are Buoyed by Relative Brand Attributes

Background:
- Relative brand attributes (awareness, consideration, meaning, etc.) and overall presence in market have significant influence over return on demand generation activities
  - Failing to control for these market impacts will lead to the potential of biased and inconsistent results, undermining your measurement effort

Controlling for Market Context:
- Publicly available stock price fluctuations
- Competitive spend data (Kantar, Nielsen, etc.) where appropriate and accessible
- Digital owned and earned ‘extra share of voice’ metrics leveraging online and social analytics tools
**Case Study: Four Lead Gen Channels and Executive Suspicions**  
There Might Be More To the Story

<table>
<thead>
<tr>
<th>Channel</th>
<th>Pro</th>
<th>Con</th>
<th>Hypothesis</th>
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<tbody>
<tr>
<td>Direct Mail</td>
<td>“Targetable and measurable”</td>
<td>“Response rates are declining”</td>
<td>“More mail seems to drive more response—kind of counterintuitive”</td>
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<td>Paid Search</td>
<td>“Low cost per lead—and everything is trending digital”</td>
<td>“It’s getting more expensive, and wouldn’t I be getting them anyway?”</td>
<td>“I think paid search might be harvesting demand from other channels”</td>
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<td>Local Field Marketing</td>
<td>“My reps tell me this is critical for success”</td>
<td>“Really expensive and totally unmeasurable”</td>
<td>“Field marketing is driving long-term local market equity”</td>
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<tr>
<td>Direct Response TV</td>
<td>“Necessary to reach a certain set of customers”</td>
<td>“Very expensive”</td>
<td>“Direct response TV is more about System 1 brand awareness than driving leads”</td>
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</tbody>
</table>

- **30% of spending**  
  - $500 cost per lead
- **40% of spending**  
  - $250 cost per lead
- **15% of spending**  
  - $1,000 cost per lead
- **15% of spending**  
  - $600 cost per lead
Case Study Results: Channels Work Together to Drive Growth

Direct Mail: Are driven by...
- Field Marketing: 15%
- DRTV: 35%
- Direct: 81%

Real cost per lead: $315 — 20% less than directly attributable
- Drives latent value for 4 weeks after mailings
- Build value by chaining 3+ mailings with 2-week intervals

Paid Search:
- Field Marketing: 22%
- Mail: 32%
- DRTV: 45%

Real cost per lead: $325 — 50% more than directly attributable
- Confirmed as a demand harvester

Local Field Marketing:
- Mail: 10%
- DRTV: 10%
- Direct: 80%

Real cost per lead: $1,100 - 10% more than directly attributable
- Confirmed as a lousy lead gen vehicle
- Keep spending—we might lose those battles once we’ve primed the pump!
- Some value as awareness driver—but not enough

Direct Response TV:
- Mail: 30%
- Direct: 70%

Real cost per lead: $550 — 10% less than directly attributable
- Drives the most brand awareness
- Over the long run, System 1 affinity drives price and margin performance

DRTV contributes most to System 1 affinity
Nine To-Do’s to Make Sure Your Multichannel Halo Analysis is Actionable

**The Data**

- ✓ Spend ten times as long gathering and QA’ing your data as doing your analysis; all your recommendations will rest on their validity
- ✓ Figure out your econometric panel structure up-front; a good best-practice for consumer data is week-by-DMA; for B2B, week-by-industry or by-company size
- ✓ Where possible, gather non-financial outcome variables along with sales; for example, weekly social media mentions is often a good proxy for awareness

**The Analysis**

- ✓ Analyze each channel’s impact on every other channel’s directly attributable sales, including its own, which will give you a true multichannel picture of what’s driving what
- ✓ Experiment with lag patterns; some channels, like direct mail, can have long post-execution effects as they “sit on the hall table”
- ✓ Conduct plenty of face validity tests to ensure the results aren’t “crazy”; this is inference, so the more time spent ensuring “interesting” results aren’t wrong, the better

**The Go-Do’s**

- ✓ Calculate how far away from optimal the current mix is, based on response curves; if we spent at optimal levels, how much better would we do?
- ✓ Tell the story of what each channel is best at; is one channel better at priming the pump, and another at harvesting? What about audience effects?
- ✓ Re-run the analysis quarterly (which should be no problem if you’ve built it to be reproducible); how are the results changing? What are the changes telling us about underlying market dynamics?
3 Areas to Action on Your MTA Efforts

Go beyond insights to institutionalize and drive positive business outcomes

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<td><strong>Budget Optimization</strong></td>
<td><strong>Agile Performance Reporting</strong></td>
<td><strong>Execution Improvements</strong></td>
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1. Utilize response curves to allocate ‘optimized’ budgets for maximum return
2. Systematize the data ingestion and modelling on a set cadence to drive on-the-go adjustments to investments
3. Identify areas to improve specific marketing channel execution (creative, processes, etc.)
With competition, tightened budgets, and increase scrutiny on spend, marketing teams are under pressure to boost demand while defending their investments. We help you attribute marketing performance to revenue success.

How MarketBridge can help strengthen marketing’s effectiveness:

Campaign Performance Assessment
Let us holistically assess your organization’s lead generation campaign through our customer-centric lens. We’ll identify top priorities and go-to-market recommendations, so marketing knows exactly what to do next and your organization quickly sees results.

Marketing Mix and Attribution
Our bread and butter is in helping clients reach the efficient marketing frontier. In uncovering full cross-channel, cross-tactic performance, we guide marketers on where to place their dollars for optimal return and long-run success.

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We wrote the book on multichannel go-to-market strategy and execution, literally. Backed by analytics, insight, and data, MarketBridge works as an extension of client teams to analyze, design, build, and optimize their go-to-market. Our Go-to-Market scientific approach is focused within six core areas to help clients drive revenue and customer value.