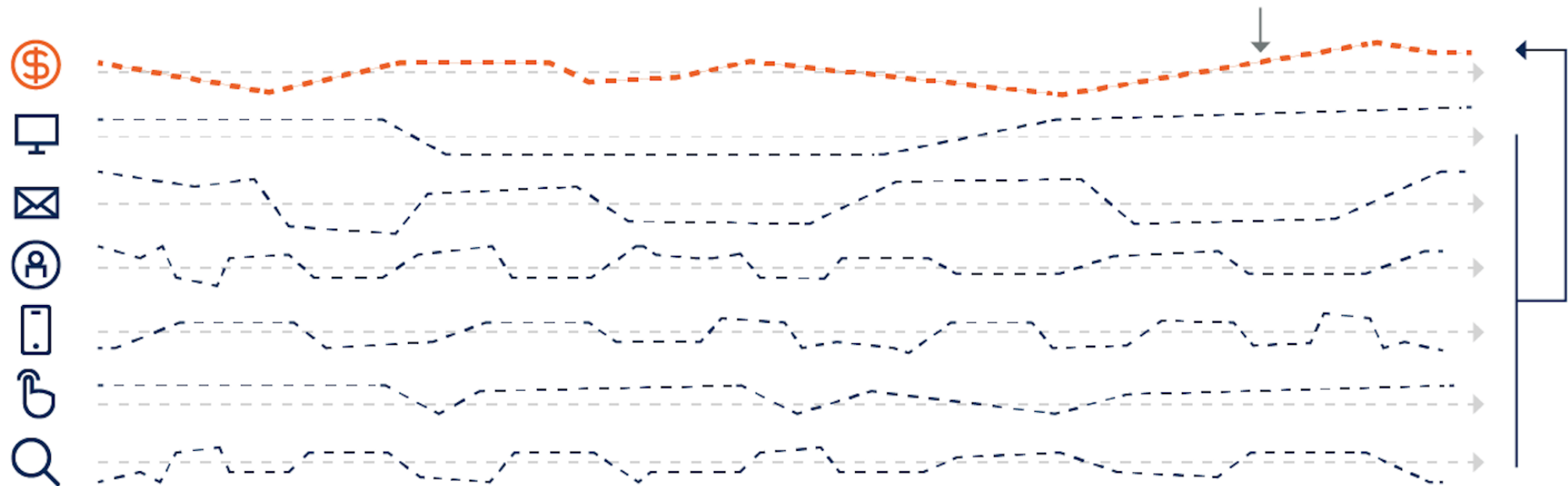


Marketing Mix Modeling (MMM)

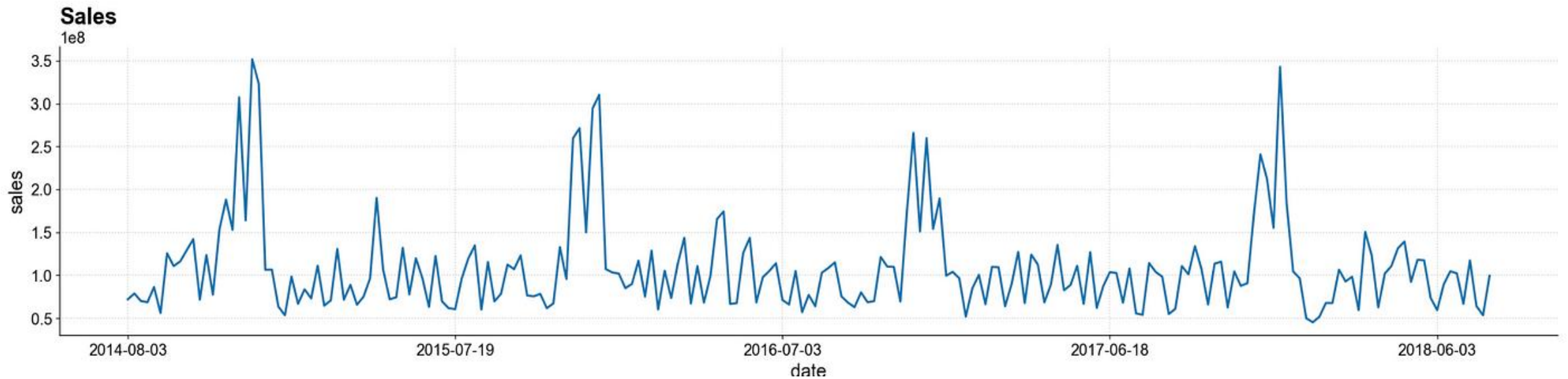
Marketing Mix Modeling

A powerful statistical analysis technique that uses dependent (sales, orders), and independent variables (marketing, macroeconomic data, competition) to estimate the impact of marketing activities on sales.

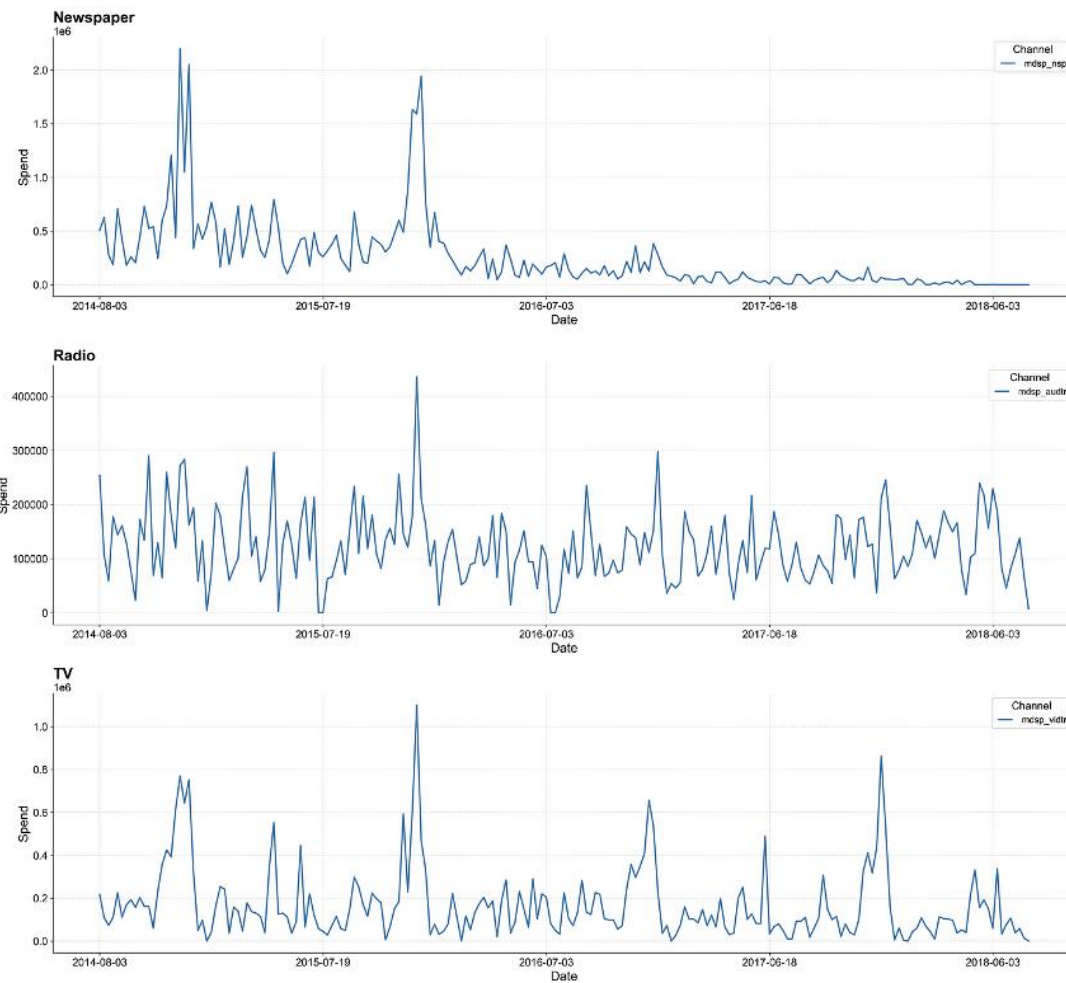
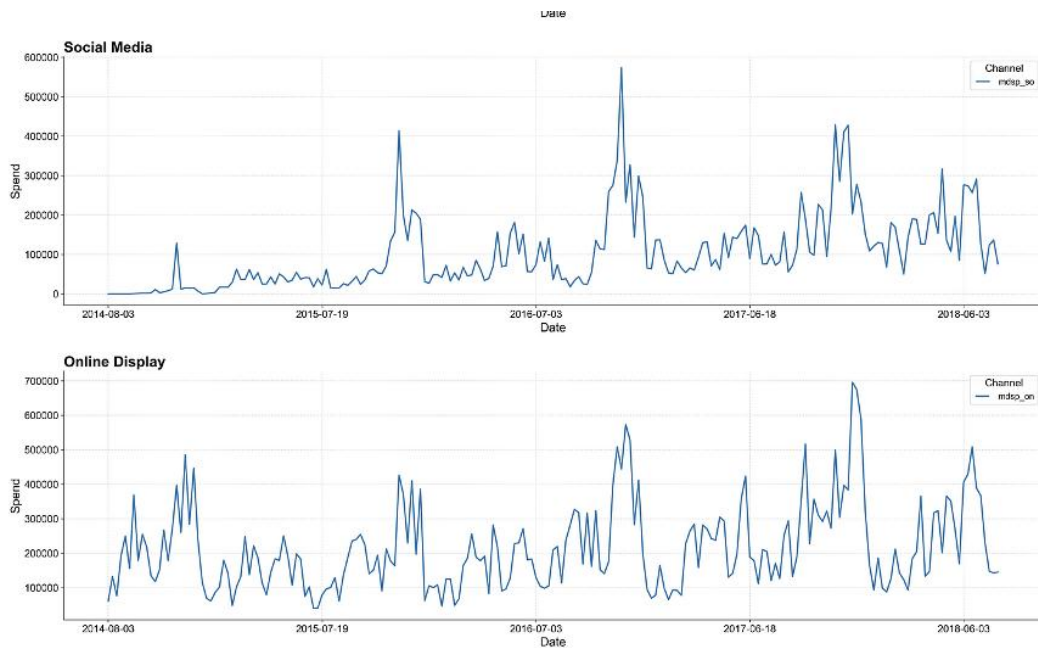
- Useful to explain historic effectiveness of the activity.
- Helps in optimizing the marketing budget by identifying the most and least efficient marketing activities.



Sales Data



Media Spends



Benefits

- Channel contribution
- ROI
- Response Curves
- Adstock
- Hill saturation curves (Diminishing returns)
- Optimized budget allocation
- Optimized incremental revenue
- Optimized budget on response curves
- Optimal frequency

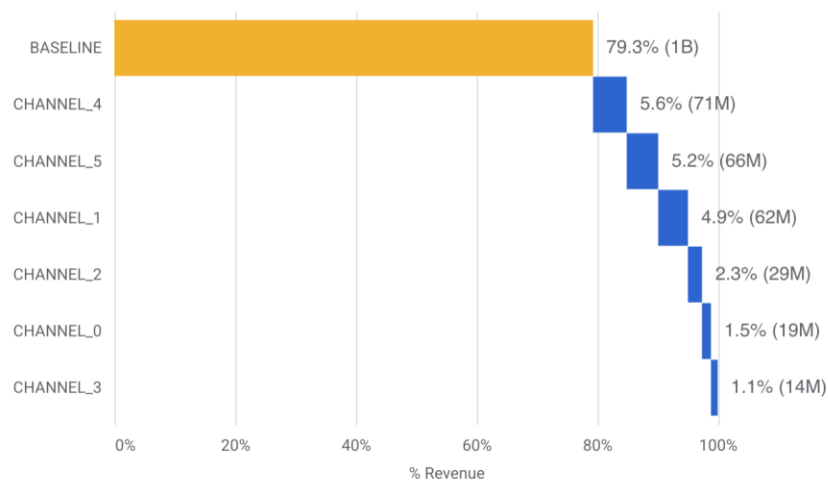


Channel Contribution

Channel contribution

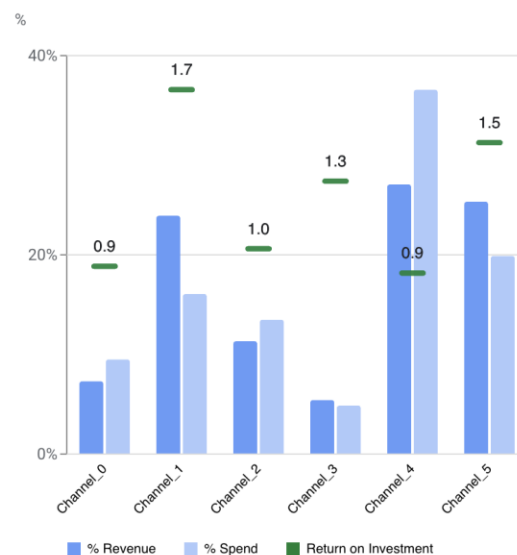
📈 Your channel contributions help you understand what drove your revenue. Channel_4 and Channel_5 drove the most overall revenue.

Contribution by baseline and marketing channels



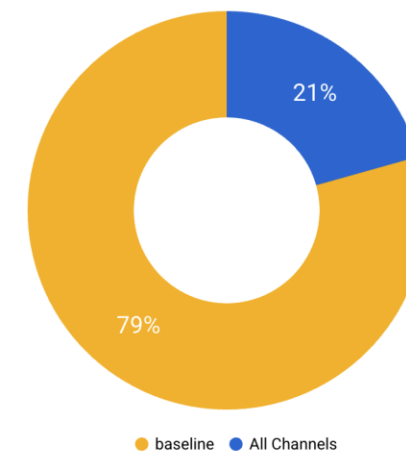
Note: This graphic encompasses all of your revenue drivers, but breaks down your marketing revenue by the baseline and all channels.

Spend and revenue contribution by marketing channel



Note: Return on investment is calculated by dividing the revenue attributed to a channel by marketing costs.

Contribution by baseline and marketing channels



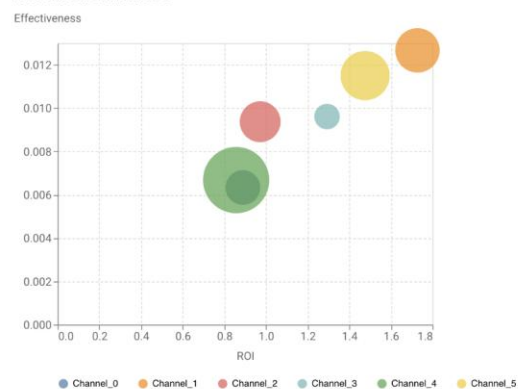
Note: This is a percentage breakdown of all your revenue.

Return on Investment

Return on investment

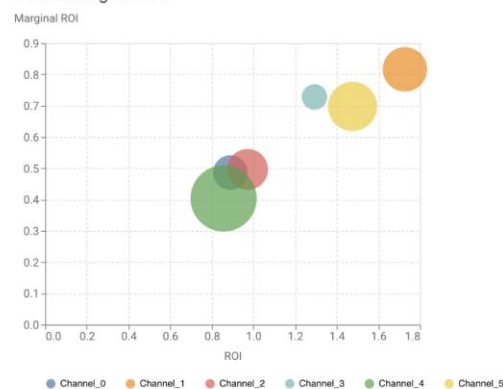
✂ Your return on investment (ROI) helps you understand how your marketing activities impacted your business objectives. Channel_1 drove the highest ROI at 1.7. For every \$1 you spent on Channel_1, you saw \$1.73 in revenue. Channel_1 had the highest effectiveness, which is your incremental revenue per media unit. Channel_1 had the highest marginal ROI at 0.82. Channel_1 drove the lowest CPIK at \$0.01. For every KPI unit, you spent \$0.01.

ROI vs. effectiveness



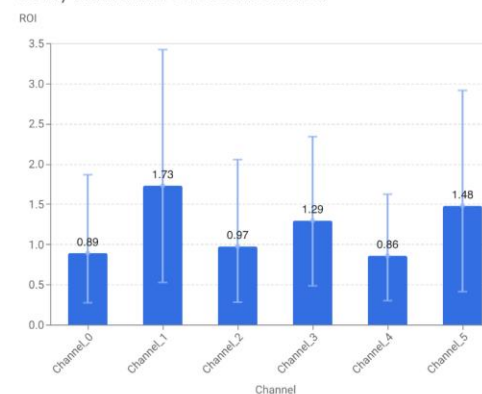
Note: Effectiveness measures the incremental revenue generated per impression. A low ROI does not necessarily imply low media effectiveness; it may result from high media cost, as positioned in the upper-left corner of the chart. Conversely, a high ROI can coexist with low media effectiveness and low media costs, as indicated in the bottom-right corner of the chart. The diagonal section of the chart suggests that the ROI is primarily influenced by media effectiveness. The size of the bubbles represents the scale of the media spend.

ROI vs. marginal ROI

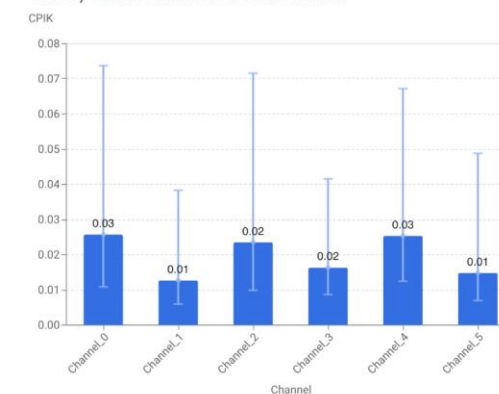


Note: Marginal ROI measures the additional return generated for every additional dollar spent. It's an indicator of efficiency of additional spend. Channels with a high ROI but a low marginal ROI are likely in the saturation phase, where the initial investments have paid off, but additional investment does not bring in as much return. Conversely, channels that have a high ROI and a high marginal ROI perform well and continue to yield high returns with additional spending. The size of the bubbles represents the scale of the media spend.

ROI by channel with 90% credible interval



CPIK by channel with 90% credible interval



Note: CPIK (cost per incremental KPI) point estimate is determined by the posterior median, whereas ROI point estimate is determined by the posterior mean.

Response Curves

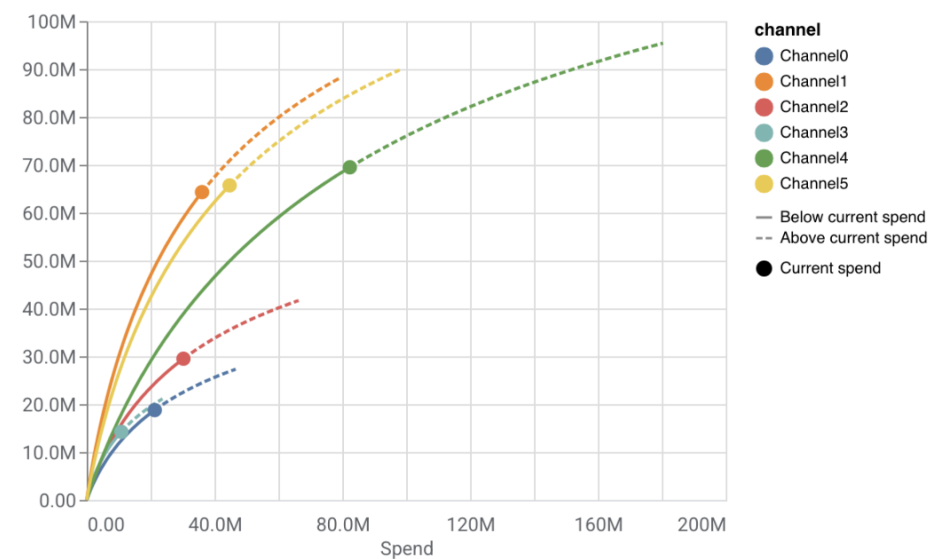
Response curves



Your response curves depict the relationship between marketing spend and the resulting incremental revenue.

Response curves by marketing channel (top 6)

Incremental revenue

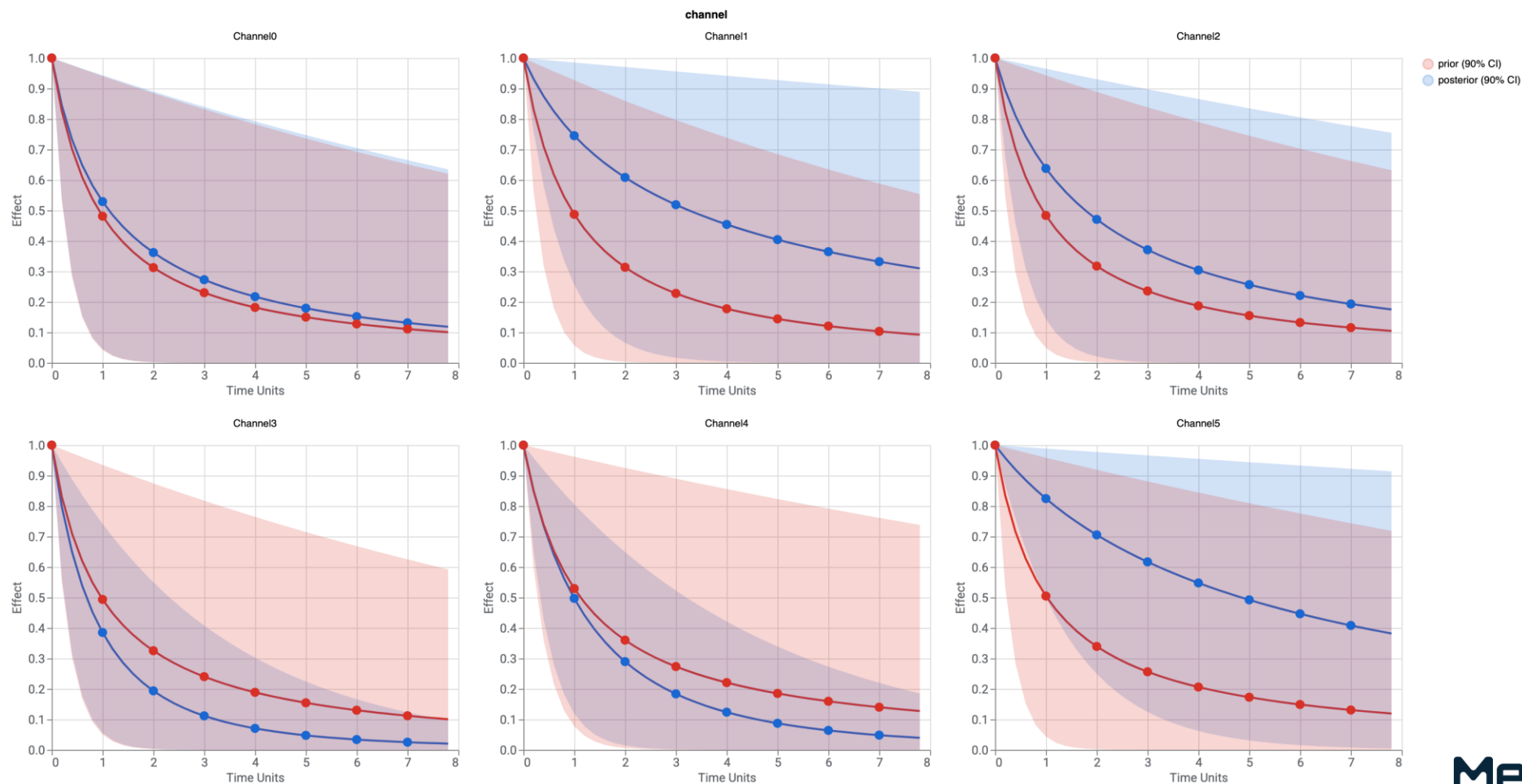


Note: The response curves are constructed based on the historical flying pattern and present the cumulative incremental revenue from the total media spend over the selected time period.

Adstock

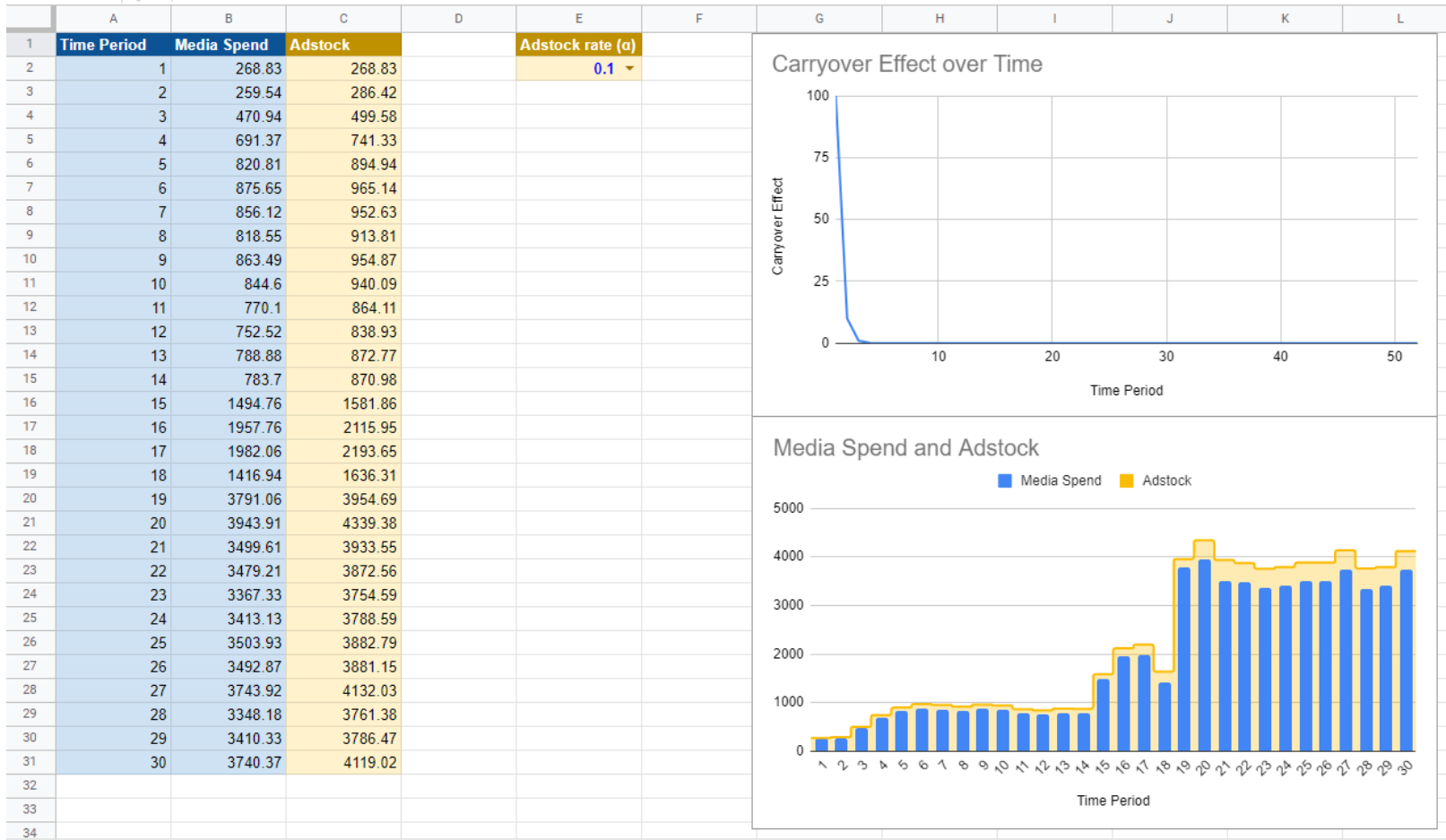
Accounting for the lagged effect of the advertising

Adstock Decay of Effectiveness Over Time



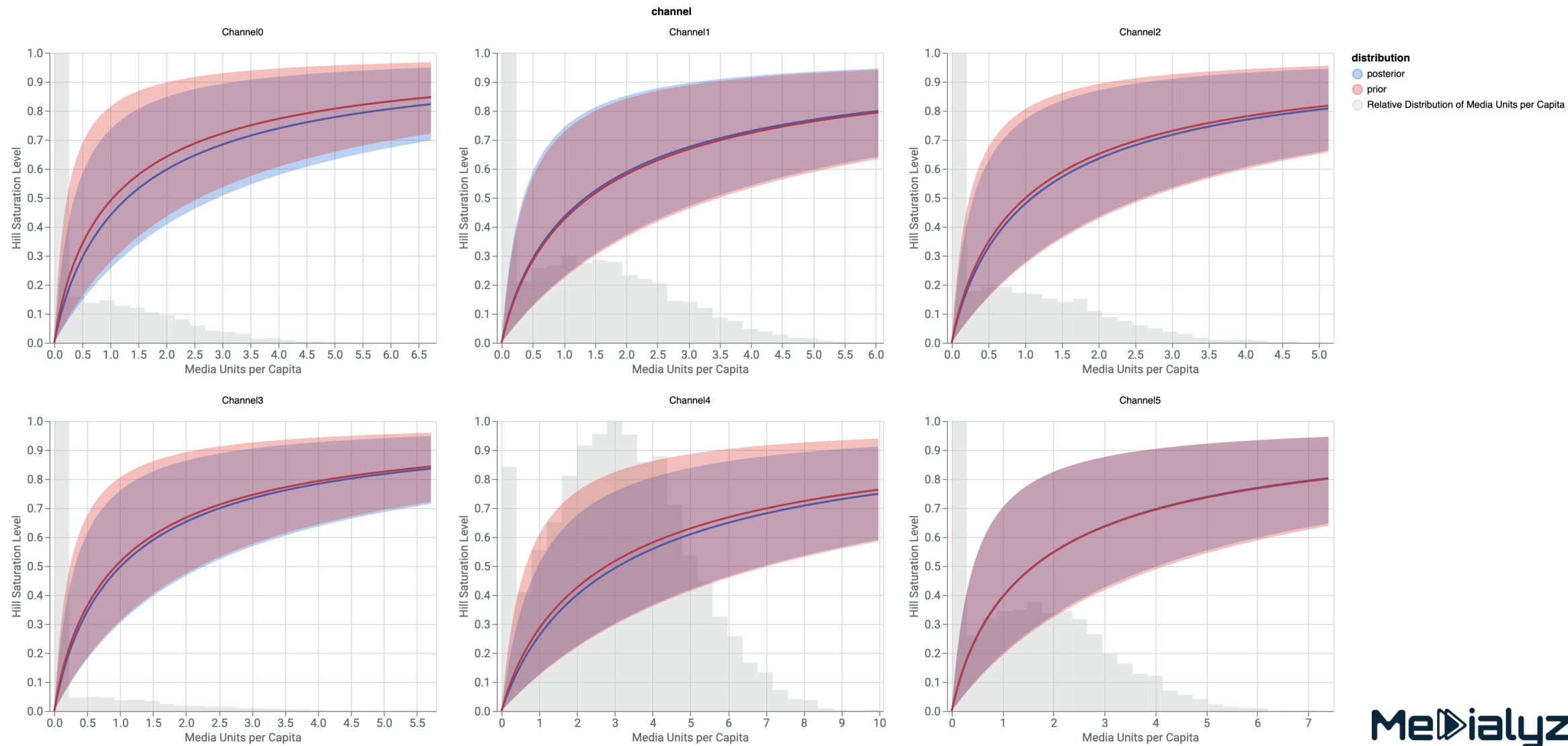
Adstock

- The formula for advertising adstock is $A_t = X_t + \text{adstock rate} * A_{t-1}$. * At stock rate
- Non-linear regression modeling



Hill Saturation Curves

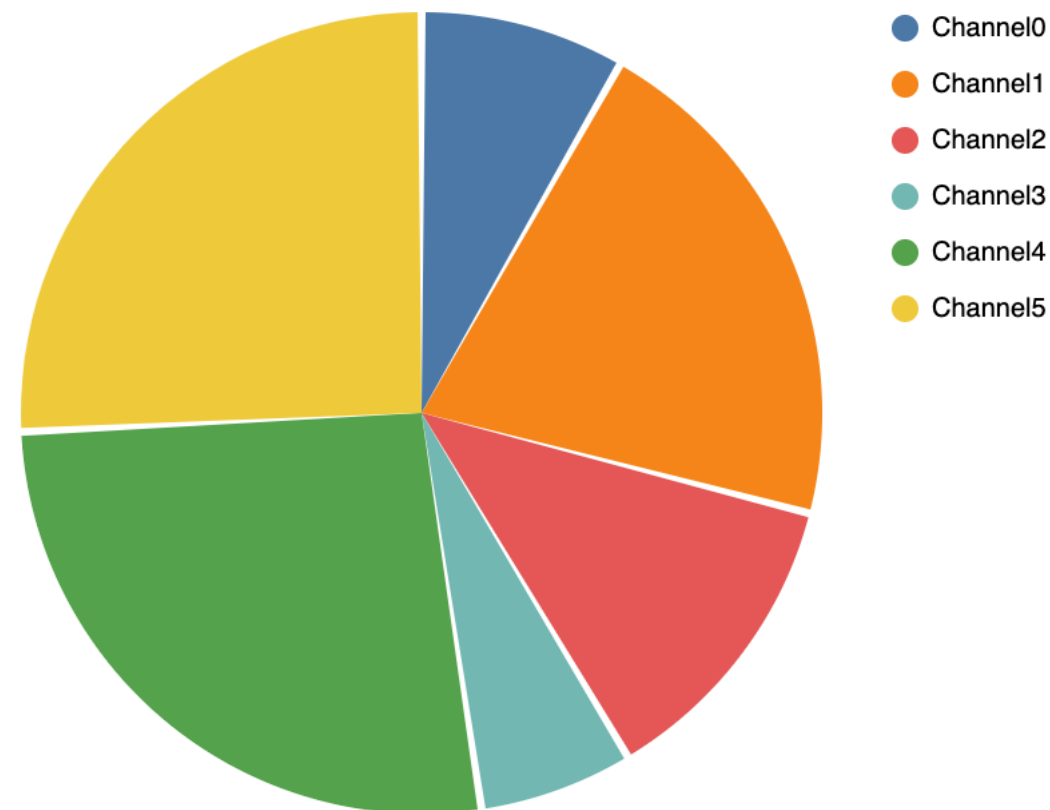
Hill Saturation Curves



Optimized Budget Allocation

Channel	Non-optimized spend	Optimized spend
Channel_4	37%	27%
Channel_5	20%	26%
Channel_1	16%	21%
Channel_2	13%	12%
Channel_0	9%	8%
Channel_3	5%	6%

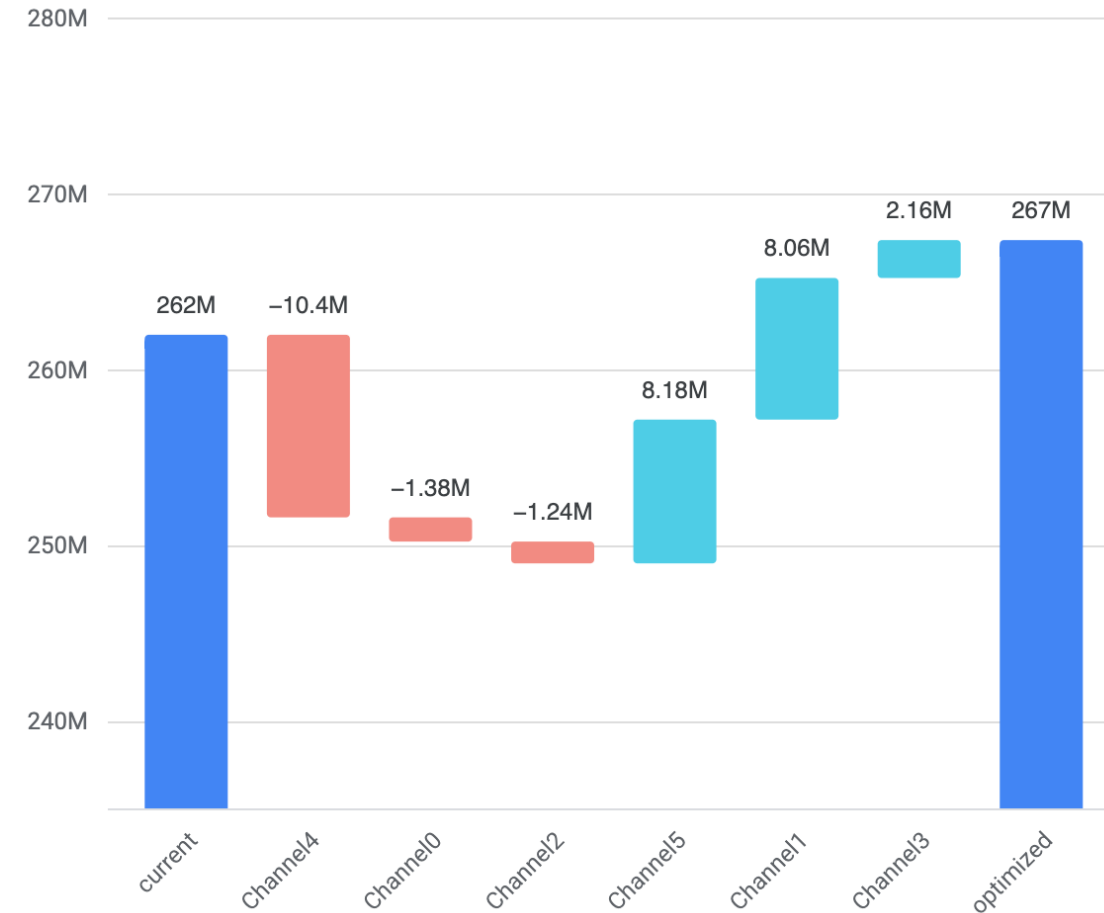
Optimized budget allocation



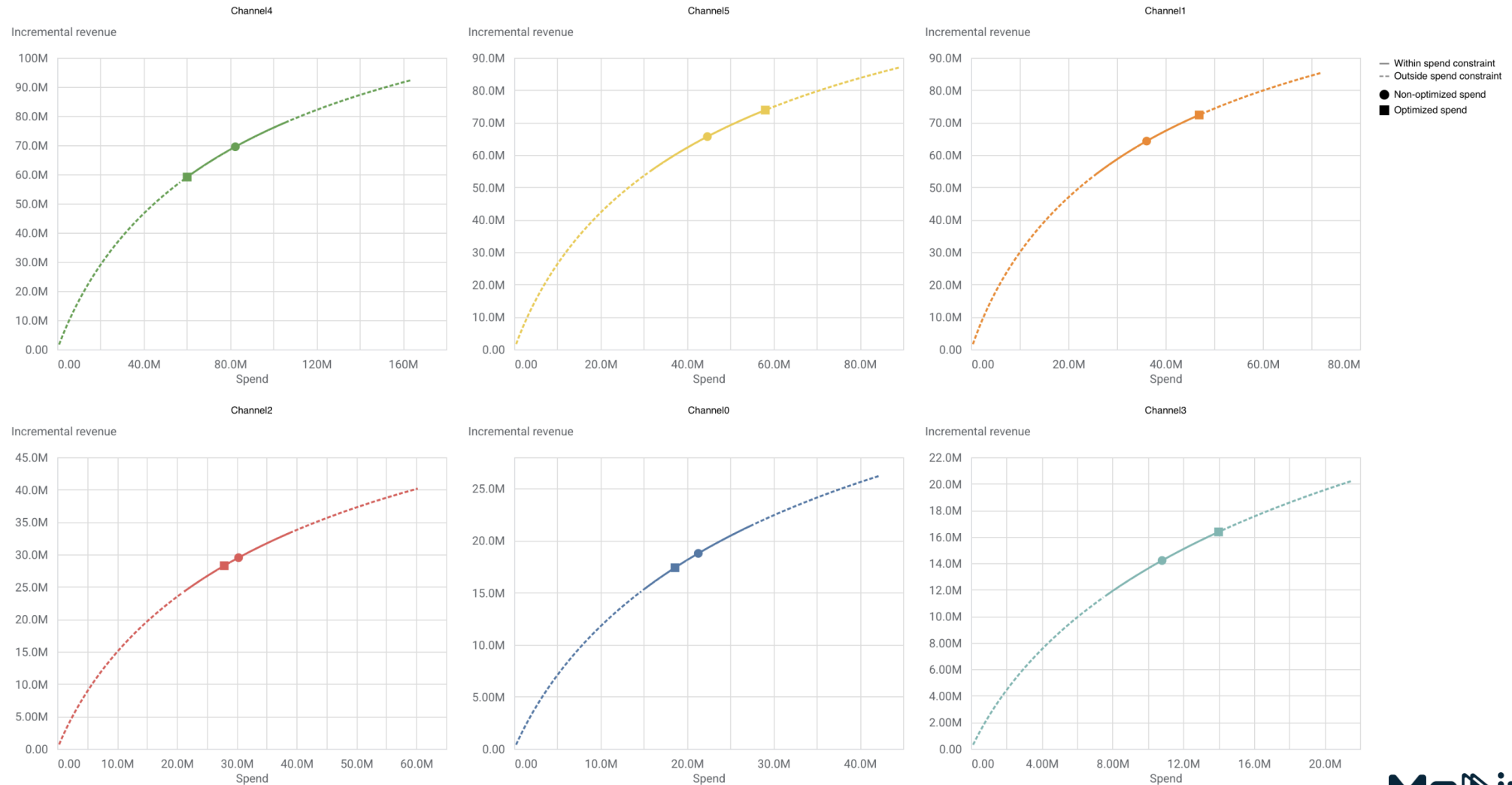
Optimized Incremental Revenue

Optimized incremental revenue across all channels

Incremental revenue

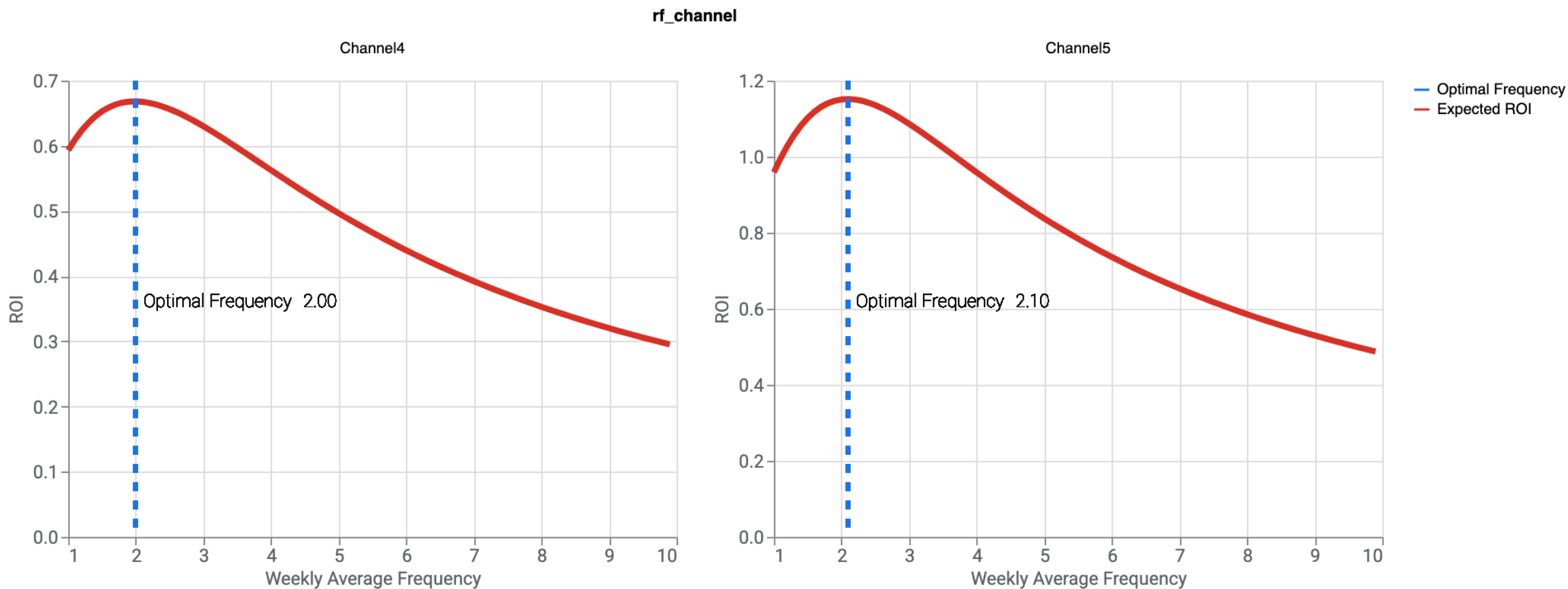


Optimized Budget on Response Curves



Optimal Frequency

Return on investment by weekly average frequency



Thanks



Enrich your media planning with Medialyzer's strong insights and increase your efficiency.

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Contact us for your inquiries and requests: sales@medialyzer.com