



Channel Attribution & Optimization for the newly launched drugs in the rare disease market





Background

Customer in ophthalmology has a relatively newly launched drug for a rare condition that is in the market for less than 2 years and wanted to understand the drivers of sales with a given limited period of data (1 year).

Their requirements included understanding the interaction among channels, the short-term and long-term ROI of each marketing tactic, and how spending across channels should be optimized



Our Solution

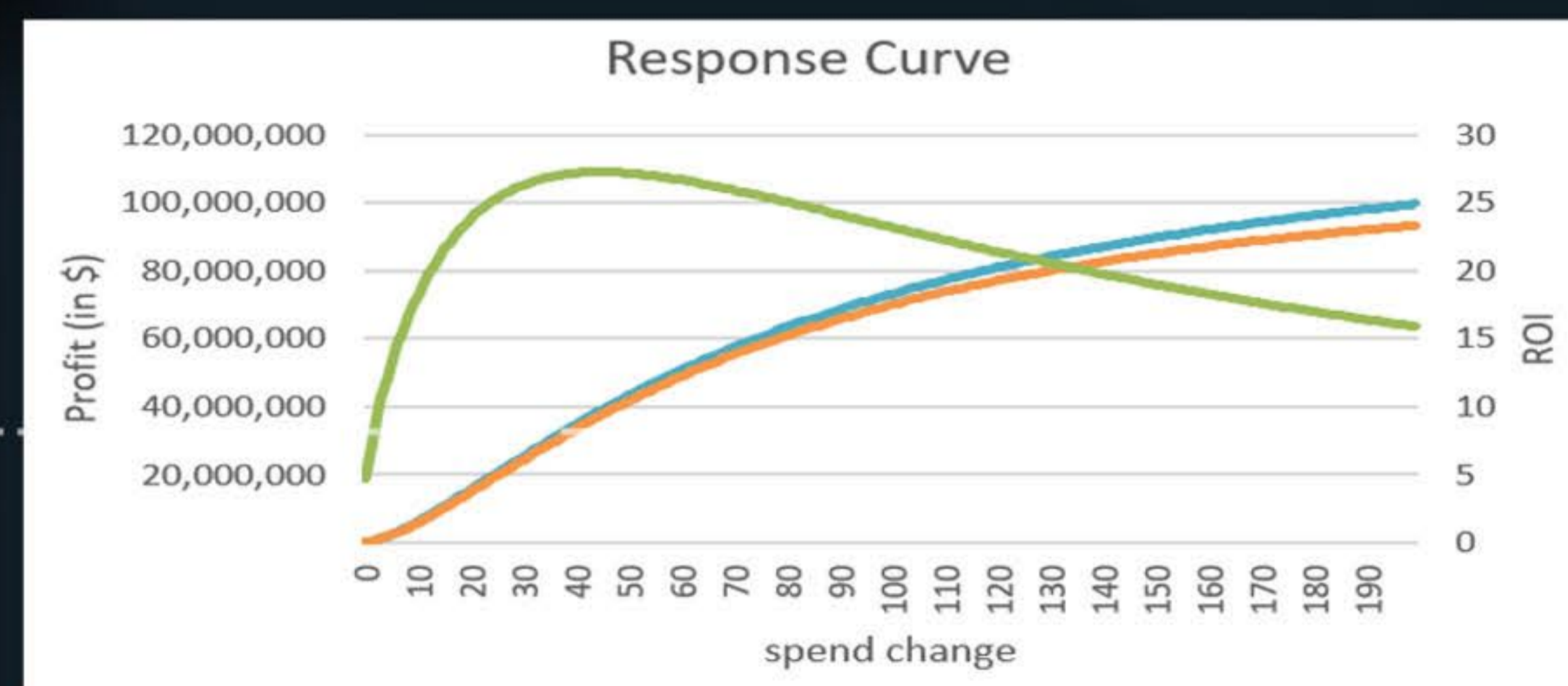
- Developed a multiplicative Market mix model which estimated using the Bayesian approach and Markov Chain Monte Carlo (MCMC) algorithms
- Bayesian Information Criterion (BIC) is used to choose the appropriate specification of the functional forms for the carryover and shape effects (like adstock and peak/lag value for channel)
- Designed an algorithm to evaluate long-term ROI for marketing tactics
Optimized spending using response curves and given budget constraints and revenue targets.

Business Outcomes

- Channel Attribution model informed that salesforce was the most influential tactic, and HCP website & paid search has high interaction with each other.
- Reallocating spending from lower ROI to higher ROI, also consider respective MROI (potential return in future) at the time of allocation.

	Contribution %	Incremental Contribution %	ROI 1 year	Sales (Units Sold)	Spend	Spending ratio
Salesforce	18.7%	42%	0.00	1,217	\$ 33,955,098	21%
Field Calls	15.9%	36%	-	1,032		0%
Veeva Emails	2.8%	6%	-	185		0%
Speaker Program	3.3%	7%	1.06	215	\$ 3,296,791	2%
HCP Emails	0.7%	1%	1.66	42	\$ 415,000	0%
TV OTT	0.9%	2%	-	61		0%
TV Unbranded	2.0%	5%	0.11	133	\$ 20,651,339	13%
TV branded	1.7%	4%	0.02	110	\$ 72,754,297	45%
HCP website	2.1%	5%	2.30	133	\$ 946,000	1%
DTC Website	2.0%	4%	1.90	128	\$ 1,102,000	1%
DTC Patient Email	0.9%	2%	73.22	58	\$ 13,000	0%
DTC Nurse advocate Calls	4.0%	9%	40.16	261	\$ 106,000	0%
DTC Paid Social	2.0%	5%	0.34	132	\$ 6,378,542	4%
HCP Media	0.7%	2%	0.19	47	\$ 4,057,795	3%
DTC Media	1.1%	2%	0.10	68	\$ 11,444,686	7%
DTC Paid Search	1.6%	4%	0.28	106	\$ 6,185,616	4%
HCP Paid Search	1.0%	2%	2.08	67	\$ 526,135	0%
HCP Social	1.8%	4%	5.23	123	\$ 381,937	0%
Baseline	55.4%	0%	-	3,527		0%

The ROI for each Tactic Mapped against the channel spending allowed us to understand Tactic Profitability and Opportunities to Increase or Decrease Investment



S – curves built out for each tactic informed opportunities for the customer to increase or decrease spends



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