



Mu Sigma

## **muMix™ – Mu Sigma's Marketing Mix Platform**

### ***Case Studies***

***Do The Math***

**Chicago, IL  
Bangalore, India  
[www.mu-sigma.com](http://www.mu-sigma.com)**

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**Proprietary Information**

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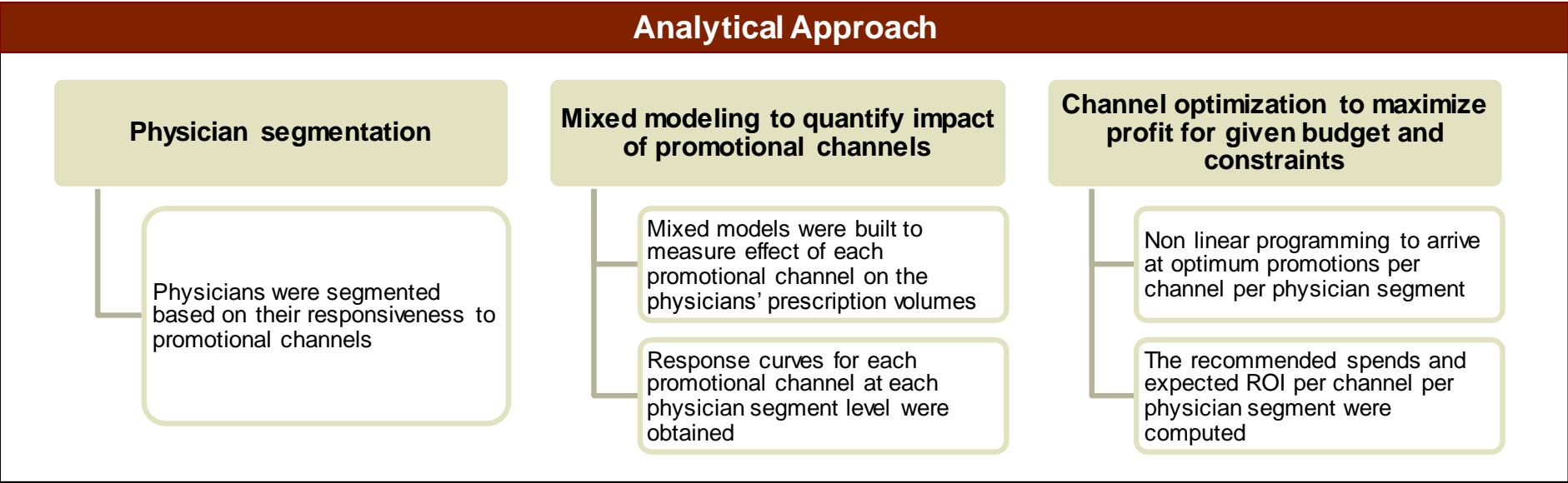
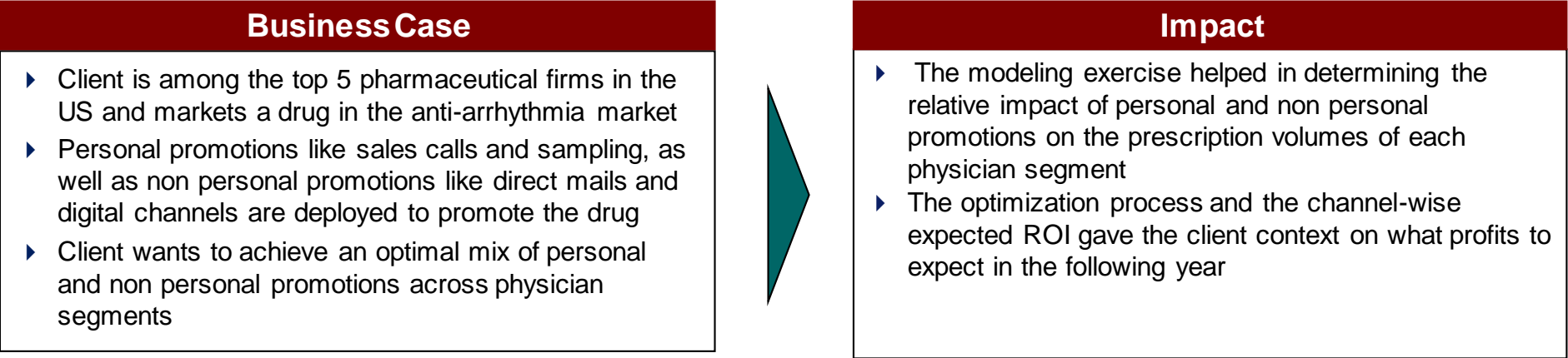


# Mu Sigma has helped clients across multiple verticals in marketing mix initiatives

Focus	Client	Summary
Optimal budget allocation	Pharmaceutical company	For a leading pharma client, muMix™ was leveraged to identify the optimal budget allocation across channels
Halo effect of marketing channels	Health care service provider	muMix™ was used by the client to simulate and compare scenarios and optimize future budget strategies based on identified halo effects to increase marketing ROI by 5%
Marketing mix optimization	Drug store retailer	Mu Sigma helped the client optimize their marketing budget across multiple divisions and geographies and increased ROI on overall marketing spend by more than 4%
Channel mix optimization	Online retailer	Mu Sigma assisted in increasing the incremental sales on marketing spends of an online retailer by optimizing their spends on new channels



# For a leading pharma company, we helped optimize promotional spends through various channels across physician segments





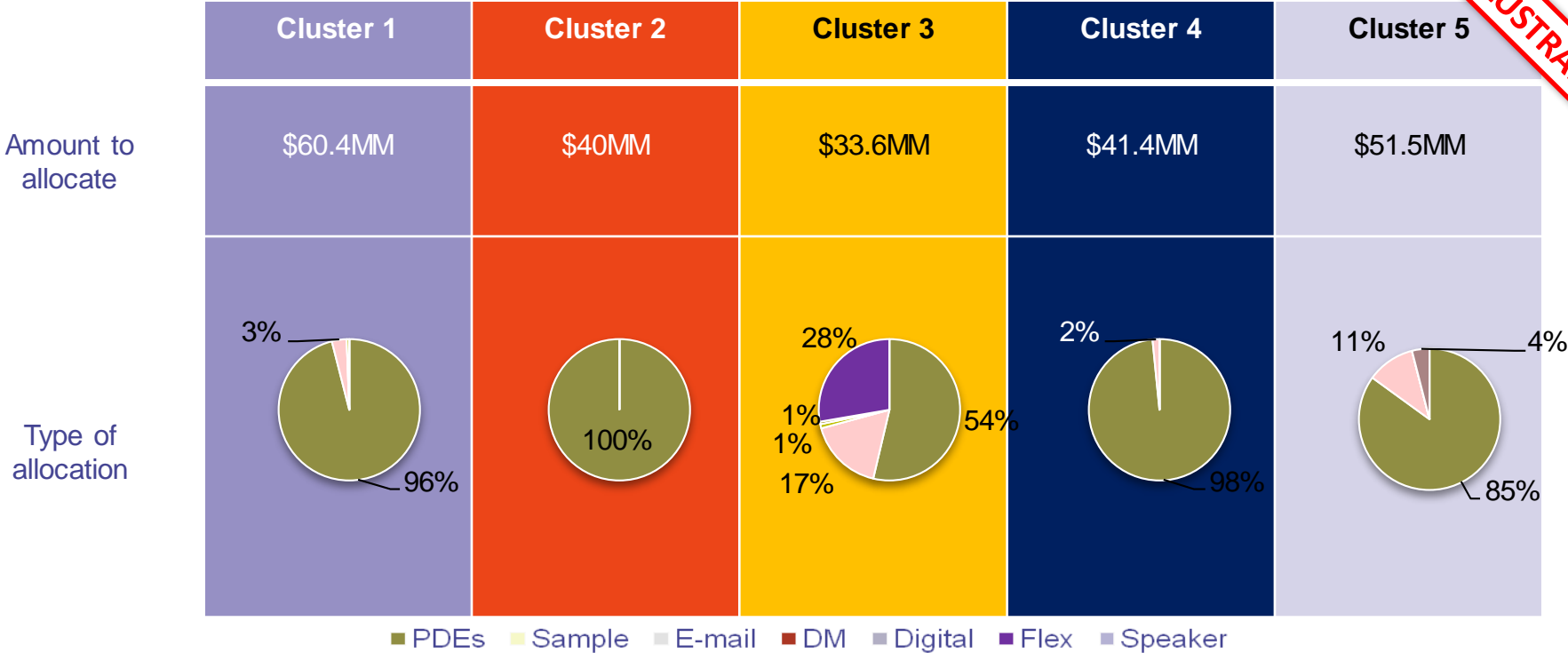
# muMix™ enabled an integrated environment to support end-to-end process of market mix analysis

muMix™	Step by step workflow of market mix analysis	Comments
	Defining problem (SCQ, Factor Map, Hypothesis Matrix)	Faster data quality analysis and exploratory data analysis (standardized output at each stage of analysis)
	Analytical dataset creation & EDA	
	Physician segmentation and profiling	
	Mixed models building	
	Estimation of Baseline and marketing contribution	Enabled to iterate faster using multiple modeling techniques and variable transformations
	Response curve creation	
	Optimization of profits/ Revenue	
	Scenario generation based on varying marketing budgets	
		Allowed deep dive analysis of marketing variables at various levels of data through response curves
		Enabled quick generation/ assessment of various marketing scenarios



# Mu Sigma recommended an optimized budget allocation policy for each cluster of physicians to obtain maximum ROI

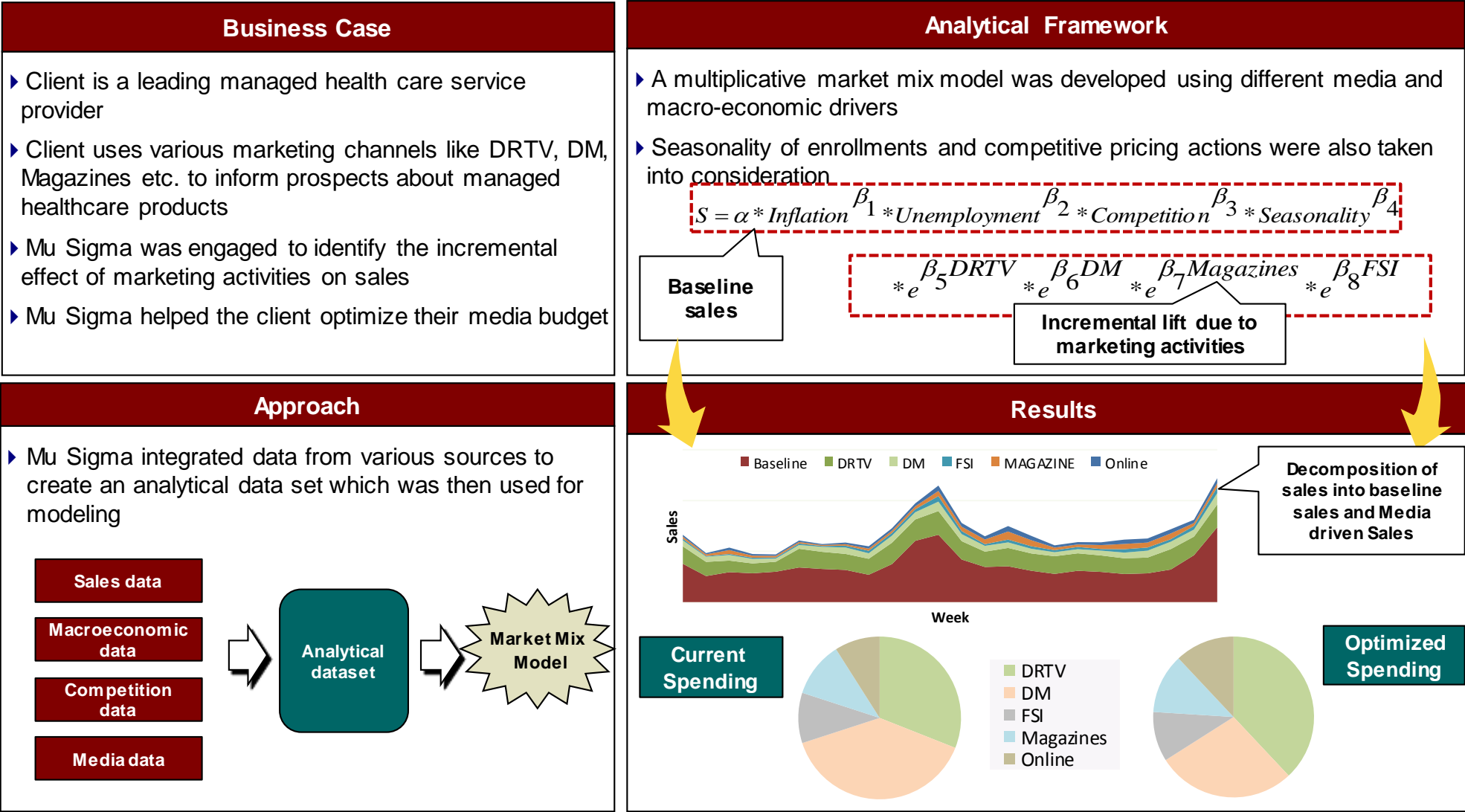
ILLUSTRATION



## Recommendations

- ▶ **Channel budget should be reallocated across clusters based on response**
  - Increase the annual volume of PDE for Cluster 3
  - CCM channels should be majorly focused on physicians part of cluster 3 and cluster 5

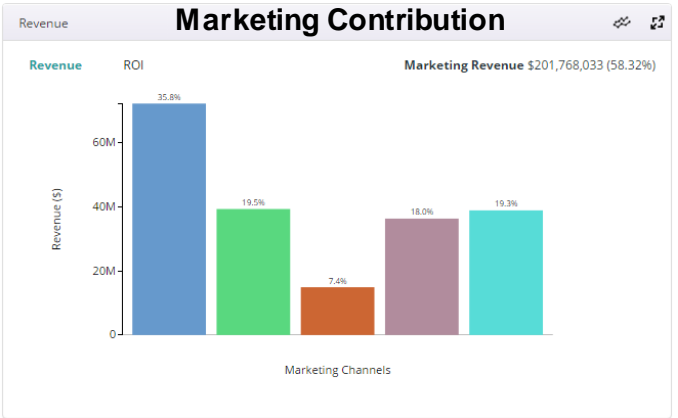
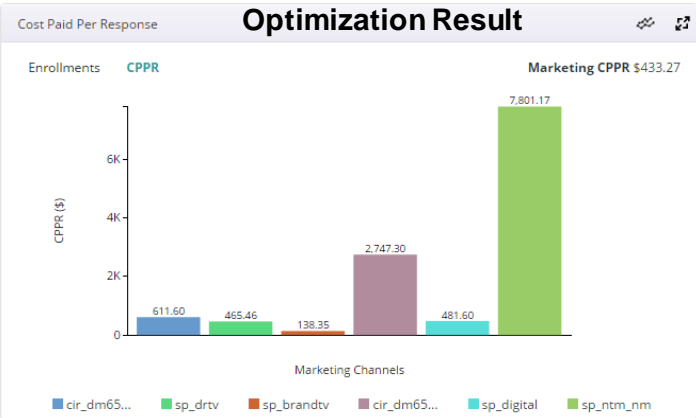
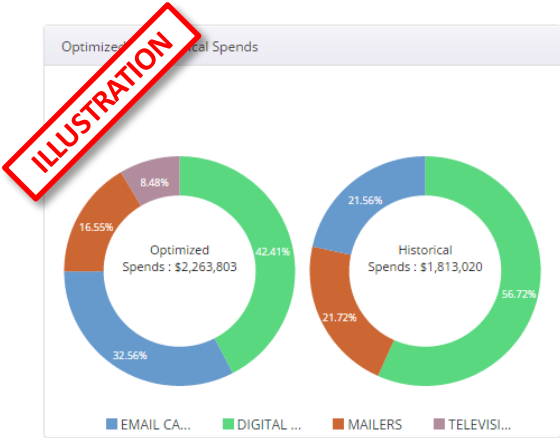
# For a major health care service provider, Mu Sigma developed a Market mix model that increased Marketing ROI by 5%





# For a drug retailer, muMix™ was used to optimize spends for future marketing campaigns with a predicted increase in ROI of 4%

Business Case	Approach	Impact
<ul style="list-style-type: none"><li>▶ The client is a leading drug store retailer with more than 7000 stores across the US</li><li>▶ The budget for these spends was approx \$ 400 MM annually</li><li>▶ Historically, 70% of these spends were concentrated on one media vehicle</li><li>▶ While there was consensus to reallocate spends across more vehicles in a more equitable manner, the mechanism for doing so was unclear</li><li>▶ A quantitative marketing mix analyses was required to provide directions for these budgeting decisions</li></ul>	<ul style="list-style-type: none"><li>▶ Extensive exploratory data analysis to understand spends across different divisions and geographies and to explore data anomalies</li><li>▶ Marketing mix model was built to analyze the spends and contribution of each marketing activity for Front End and Pharmacy</li><li>▶ Measured ROIs for each channel and compared it year over year</li><li>▶ Deep-dived into product department level and aggregated it at a chain level to understand impact on different product divisions</li></ul>	<ul style="list-style-type: none"><li>▶ Forecasted sales for the next marketing campaign with a predicted ROI increase of 4%</li><li>▶ Allocation of 12% of marketing budget to Pharmacy generated 61% of total incremental revenue due to marketing</li><li>▶ Provided directions to optimize spends distribution across channels to derive maximum incremental sales. E.g. Increasing spend on Circulars during holiday season is likely to provide higher ROI</li></ul>



# For a leading online retailer, Mu Sigma built a market mix model to understand impact of different marketing channels

Business Case	Approach	Impact
<ul style="list-style-type: none"><li>▶ The retailer intends to counter the effect of the economic downturn by improving their marketing strategy by including various new initiatives in addition to online spend like<ul style="list-style-type: none"><li>– TV advertisements</li><li>– Print advertisements</li><li>– Placing ads in Airport bins</li></ul></li><li>▶ To decide on the future course of action there is a need to understand the quantitative impacts of each of the marketing activities</li></ul>	<ul style="list-style-type: none"><li>▶ The time period where all the marketing events that need to be tested occurred was chosen</li><li>▶ A market mix model was built with an exponential form to capture interaction effects between the different marketing channels</li><li>▶ Contributions of the different Marketing channels were identified during the time period to find the ROI of each</li></ul>	<ul style="list-style-type: none"><li>▶ The response curves for the different marketing channels were used to optimize spend over the next 6 months</li><li>▶ The optimized spend would result in an increase in sales of \$ 8 MM for an increase in spend of \$ 1 MM</li><li>▶ The retailer implemented pricing and marketing strategy changes based on the results of the model</li></ul>

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Hans Island

New Caledonia's only island in the northern hemisphere. [www.speaktofrank.com](http://www.speaktofrank.com)

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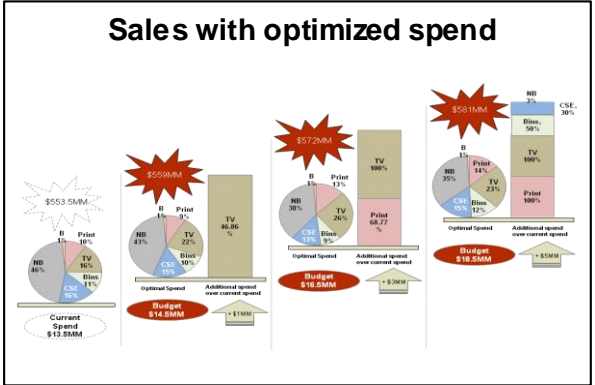
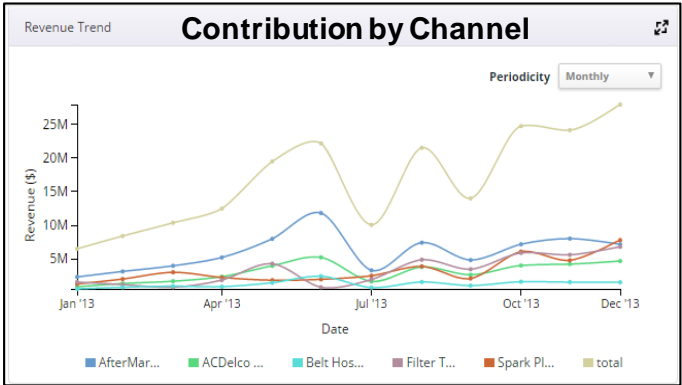
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# For a leading automobile company, we helped attribute individual impact & optimize spends for all after-sales programs

## Business Case

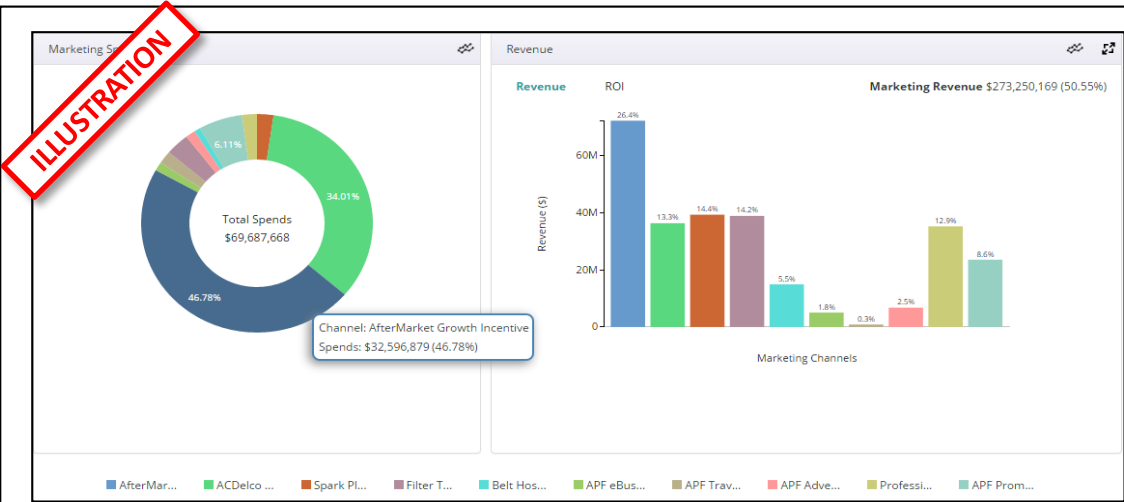
- ▶ The client accounts for more than one-sixth of worldwide automobile market
- ▶ The after-sales market is catered to by promotional programs they design under all three channels
- ▶ The client wants to attribute gross revenue to each program individually in order to optimize promotional spend for each program under all three channels



## Analytical Approach

- ▶ Marketing mix model was built to analyze the spends and contribution of each promotional program under each channel
- ▶ ROIs were measured for each program under each channel and compared it year over year
- ▶ Programs were further segmented based on ROI-Spends ratio into three distinct custom segments: 'Opportunity', 'Maintenance' and 'Evaluation'

## Observations and Impact



- ▶ 'High ROI-High Spend' and 'High ROI-Low Spend' programs were categorized as Opportunity
- ▶ 90% of marketing revenue were driven from programs categorized under 'Opportunity'
- ▶ AMG Incentive, Same Day Repair and Retail Digital Media were among the top 5 well performing programs under all three channels
- ▶ Further optimal budget allocation recommendations were provided for all three channels