



Boldly redefine the possibilities of using data to drive business impact

**ANALYZE** data!! **SOCIALIZE** insights!! **MONETIZE** actions!!

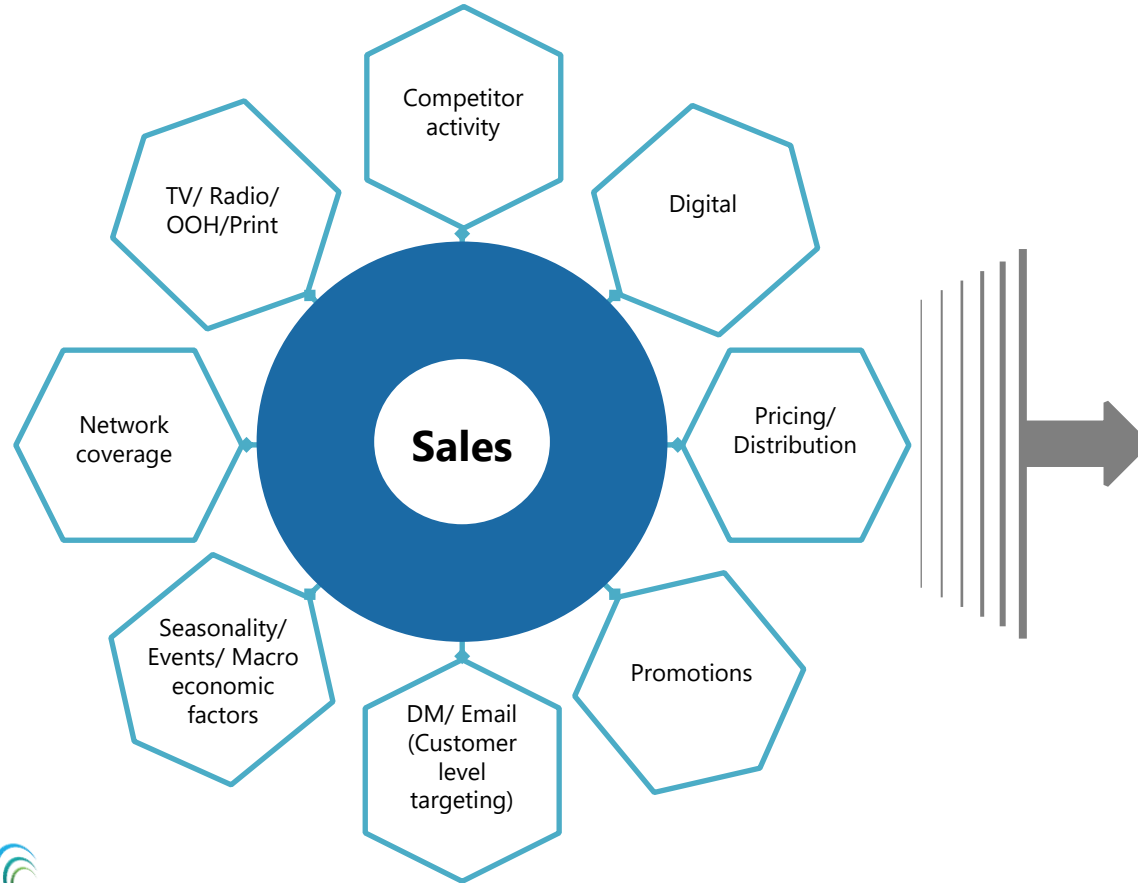


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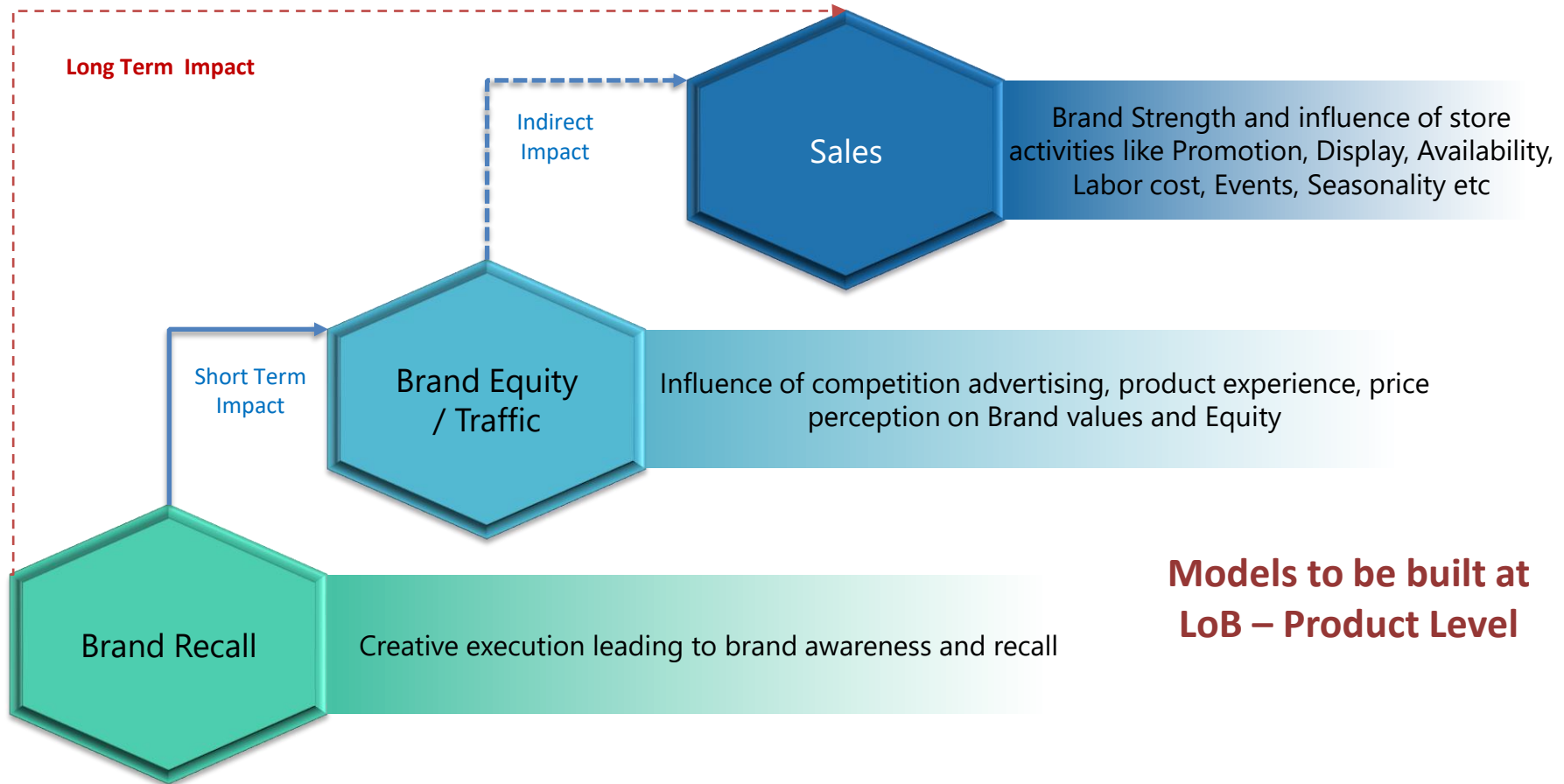
# Our Understanding of the Requirements



## Comprehensive Solution

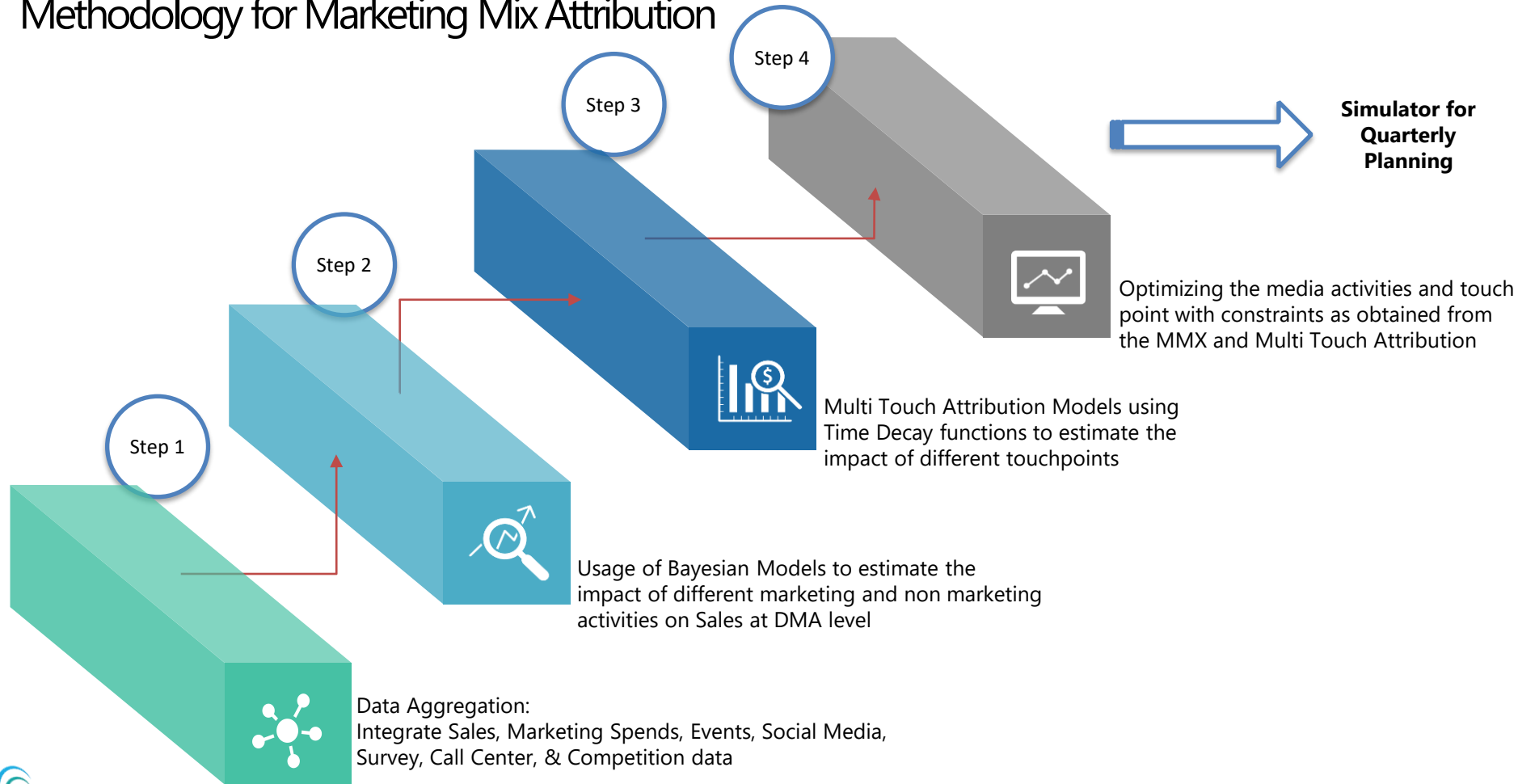
- How much of sales is driven by Natural Growth, Seasonality, Marketing activities and pricing strategies?
- Has marketing been successful in increasing the Brand equity?
- Is sales driven by brand building activities or transactional activities?
- What is the impact of catastrophic/ non catastrophic macro events?
- Which marketing activity over indexes on sales contribution vs spends?
- Are there activities where the spends are sub optimal?
  - What is the optimal levels of spends for each marketing activity?
  - Are there activities where the spends are above the threshold?
- Quarterly model refresh and predictions for next quarter

# Our Solution – A Layered model to map the “REAL” consumer Behavior



**Models to be built at  
LoB – Product Level**

# Methodology for Marketing Mix Attribution



# Data Transformation: Adstock

## What does this capture?

Every ad has a residual & decay component which estimates the memory factor of an ad

## What are conventional methods?

Standard decay across all marketing activities

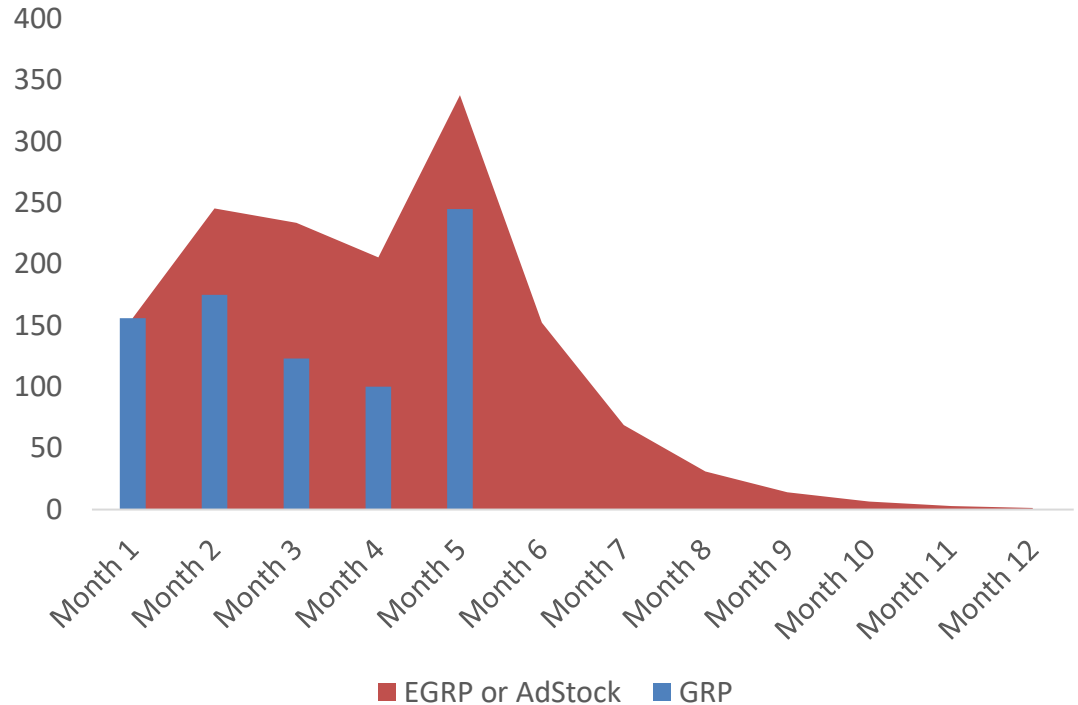
## The Convergytics method

Simulation tests to identify most accurate decay & residual factor

## Why Convergytics method?

Every marketing activity, brand and business has different memory elements. We cannot use same approach for all and need to run simulations to identify the best approach

AdStock vs GRP



# Data Transformation: Lead & Lag

## What does this capture?

Time Lag for a marketing activity to show impact on Sales and Brand Equity

## What are conventional methods?

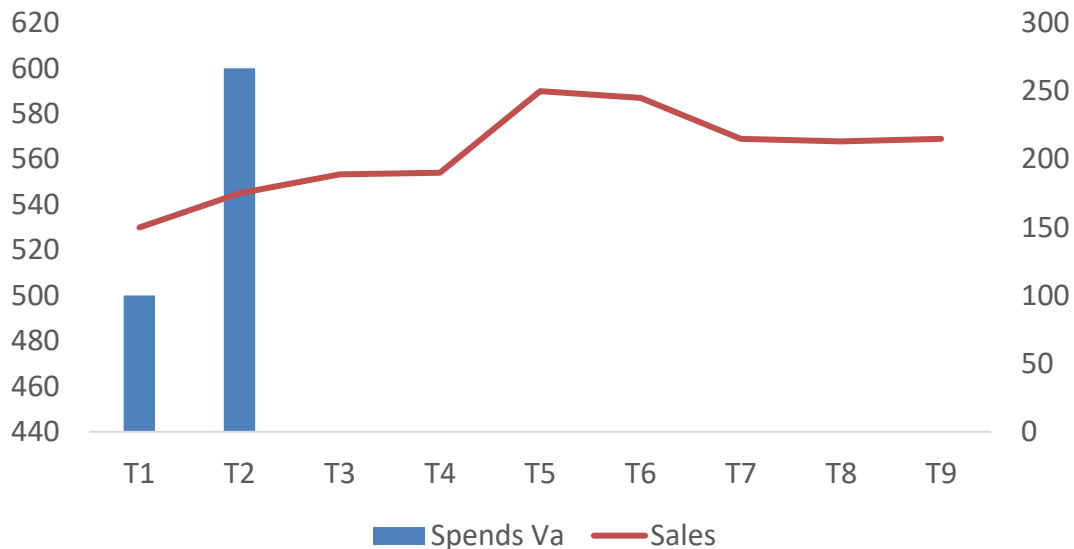
Checking for point of highest correlation based on linear level shifts

## The Convergytics method

Advanced algorithms to capture polynomial lag estimates

## Why Convergytics method?

Lag effects are non-linear and have complex polynomial variation. Conventional methods don't capture this accurately leading to incorrect lag estimation



# Data Transformation: Diminishing Returns

## What does this capture?

The point where diminishing returns are observed

## What are conventional methods?

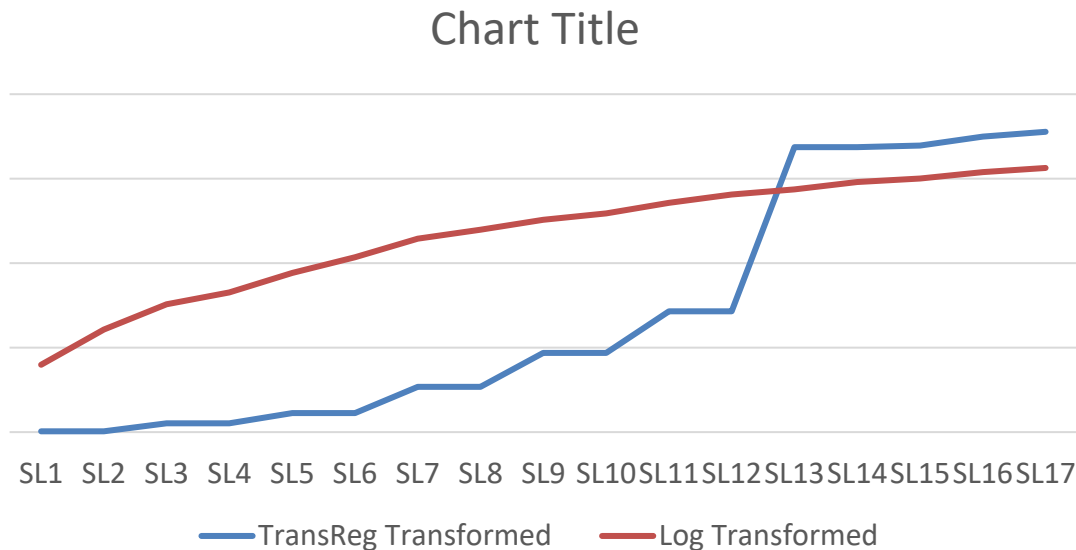
Using linear logarithmic transformations

## The Convergytics method

Model for different spend intervals & compute elasticity

## Why Convergytics method?

Sales demonstrates different elasticities at different spend intervals and cannot be captured using logarithmic transformations



# Data requirement for Marketing Mix Attribution For Client and competition

- Sales/ Revenue data at Product level
- Sales of competitor at Product level
- Pricing at Product level
- TV spends/ TV GRP by Model
- Promotion spends/ Type of promotion by Product
- Print/ Radio/ OOH/ Other offline media spends by LoB/ Product
- Spends on Youtube/ Search/ Affiliates/ Email/ Banner/ Adwords and other digital spends by Product
- Brand track data – Spot Awareness/ Aided awareness/ Disposition towards brand/ Preference share etc.,

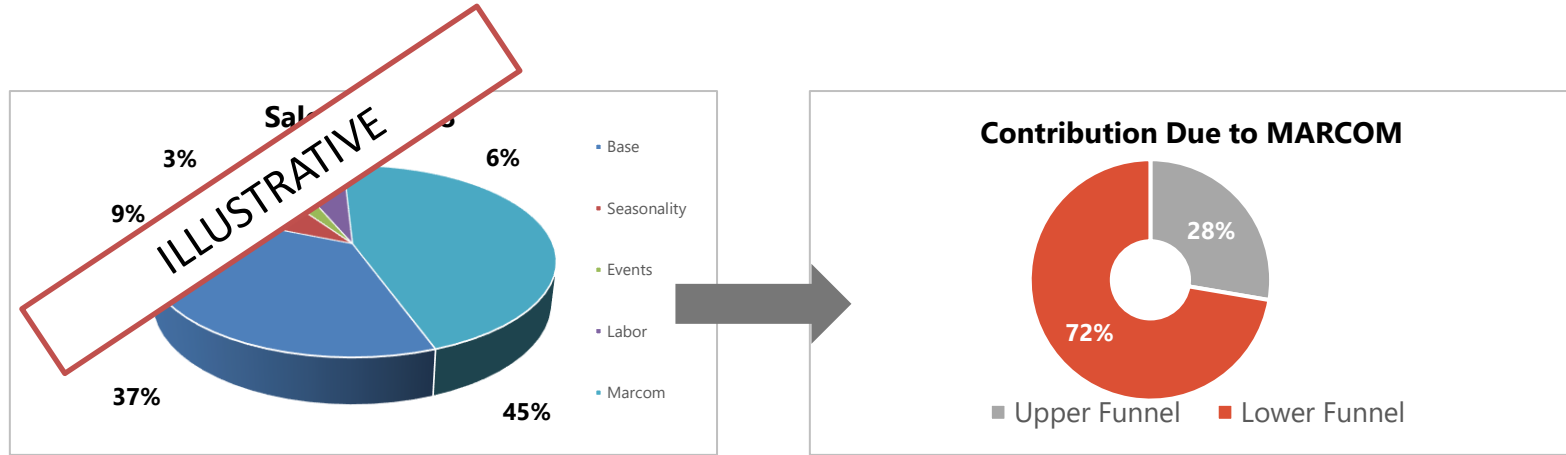


# Key questions that will be answered – This list is indicative and not exhaustive

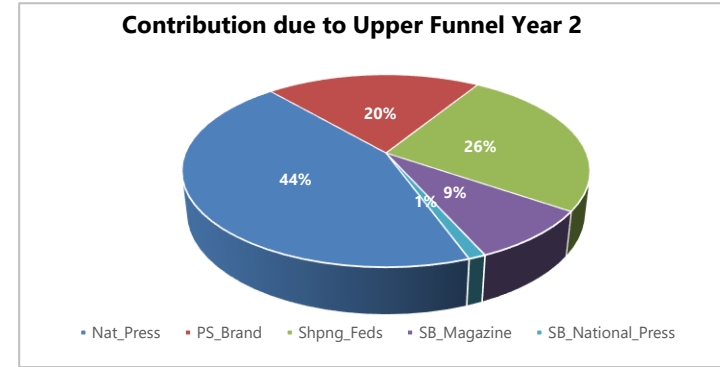
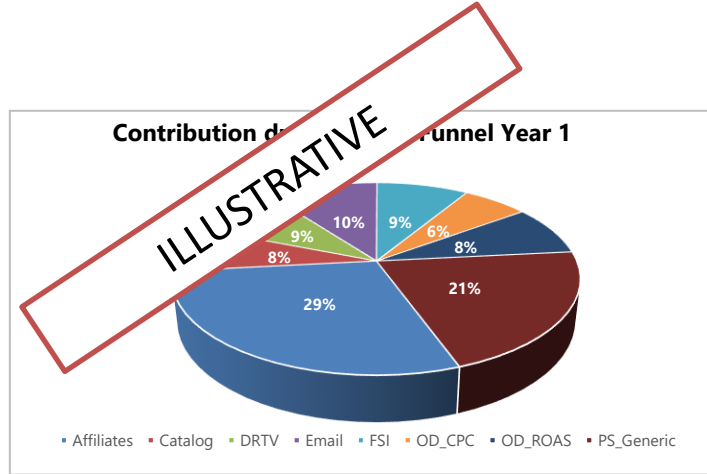
- *Impact of marketing activities on Sales (By LoB/ Product)*
- *Impact of competition activities on Sales (By LoB/ Product)*
- *ROI of marketing activities (By LoB / Product)*
- *Halo effect of marketing activities (By LoB / Product)*
- *Cannibalization/ Synergies within and outside the Mode (By LoB / Product)*
- *Impact of pricing on Sales (By LoB / Product)*
- *Loss due to Stock outs*
- *Impact of change in pricing of competition on Sales (By LoB / Product)*
- *Impact of increase/ decline (By LoB / Product)*
- *Long Term and Short term effect of advertising (By LoB / Product)*
- *Impact of marketing mix on Brand equity/ Brand preference (By LoB)*
- *Impact of competitive marketing activities on Brand equity/ Brand preference (By LoB)*
- *Optimized media plan*

## Illustrative Outputs

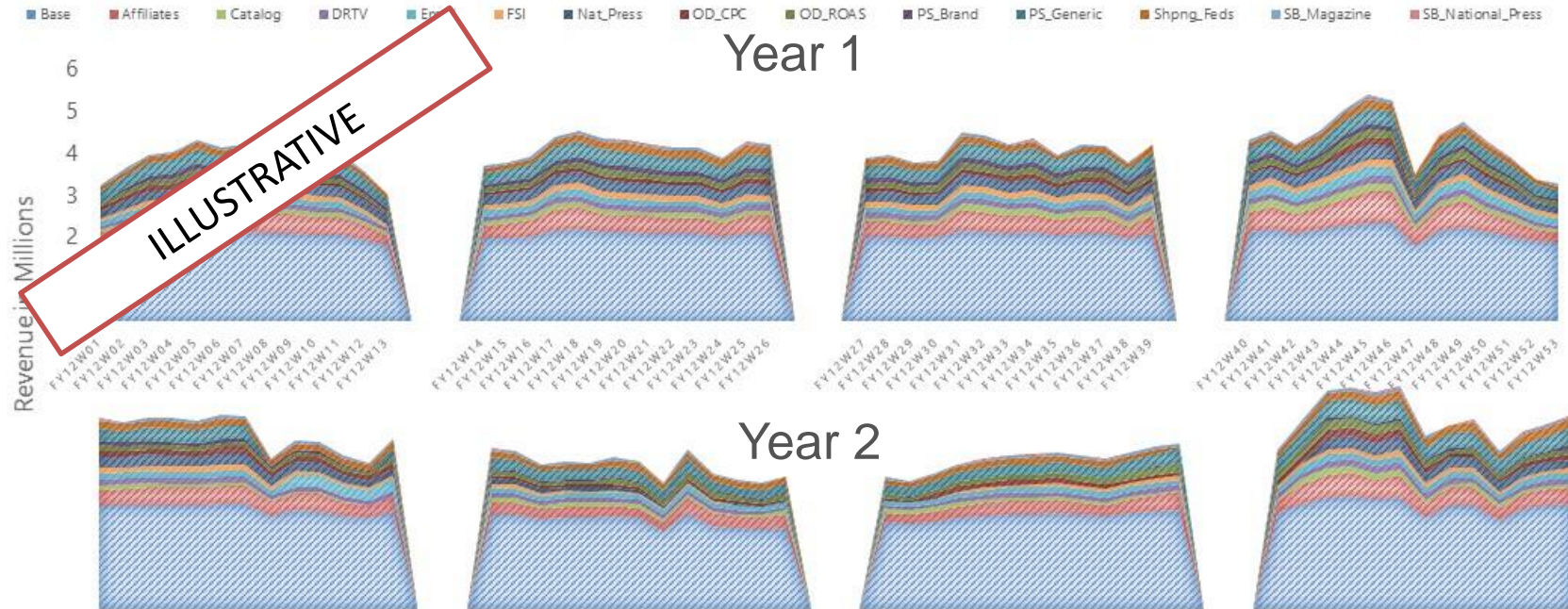
# Contribution by Different Channels and Non Marketing Activities at Overall and Region Product Level



# Break down of contribution by marketing activities based on advertising/communication objective



Is brand equity growing over period of time? Which activity has maximum impact in specific time periods



# Price Elasticities and Cross Price Elasticities

The diagonals represent price elasticity

Other cells represent Cross Price elasticity

Elasticity can be interpreted as One percent decrease in price of item 1 leads to 3.8% increase

Cross Price elasticity can be interpreted as One percent decrease in price of item 1 leads to 1.1% decrease in item 4 sales

ILLUSTRATIVE

Items	Results in change in Sales of Item 1 by	Results in change in Sales of Item 2 by	Results in change in Sales of Item 3 by	Results in change in Sales of Item 4 by
Change in price of Item 1 by 1%	-3.8	1.7	1.8	1.1
Change in price of Item 2 by 1%	1.5	-2.2	1.1	1.12
Change in price of Item 3 by 1%	1.1	0.68	-1.5	1.0
Change in price of Item 4 by 1%	0.7	1.1	0.9	-3.33

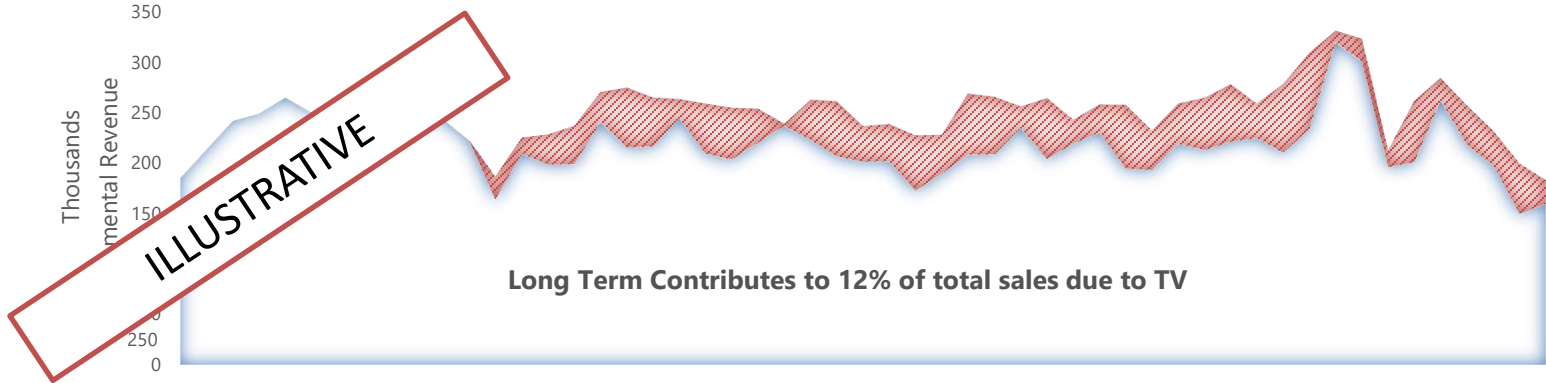
Cross Price Elasticity

Price Elasticity

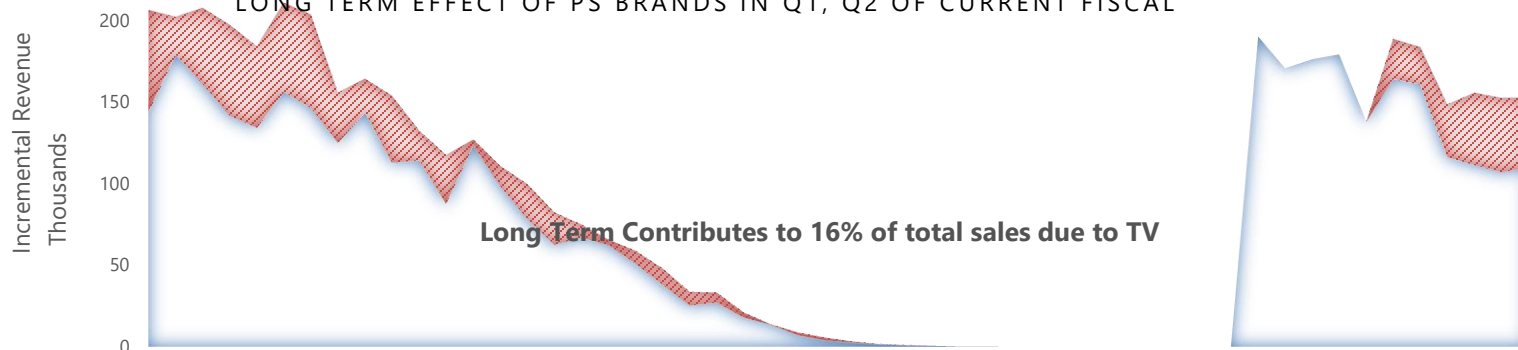
# Is there a long term impact on sales? How long does the impact last?

LONG TERM EFFECT OF NATIONAL PRESS IN Q1, Q2 CURRENT FISCAL

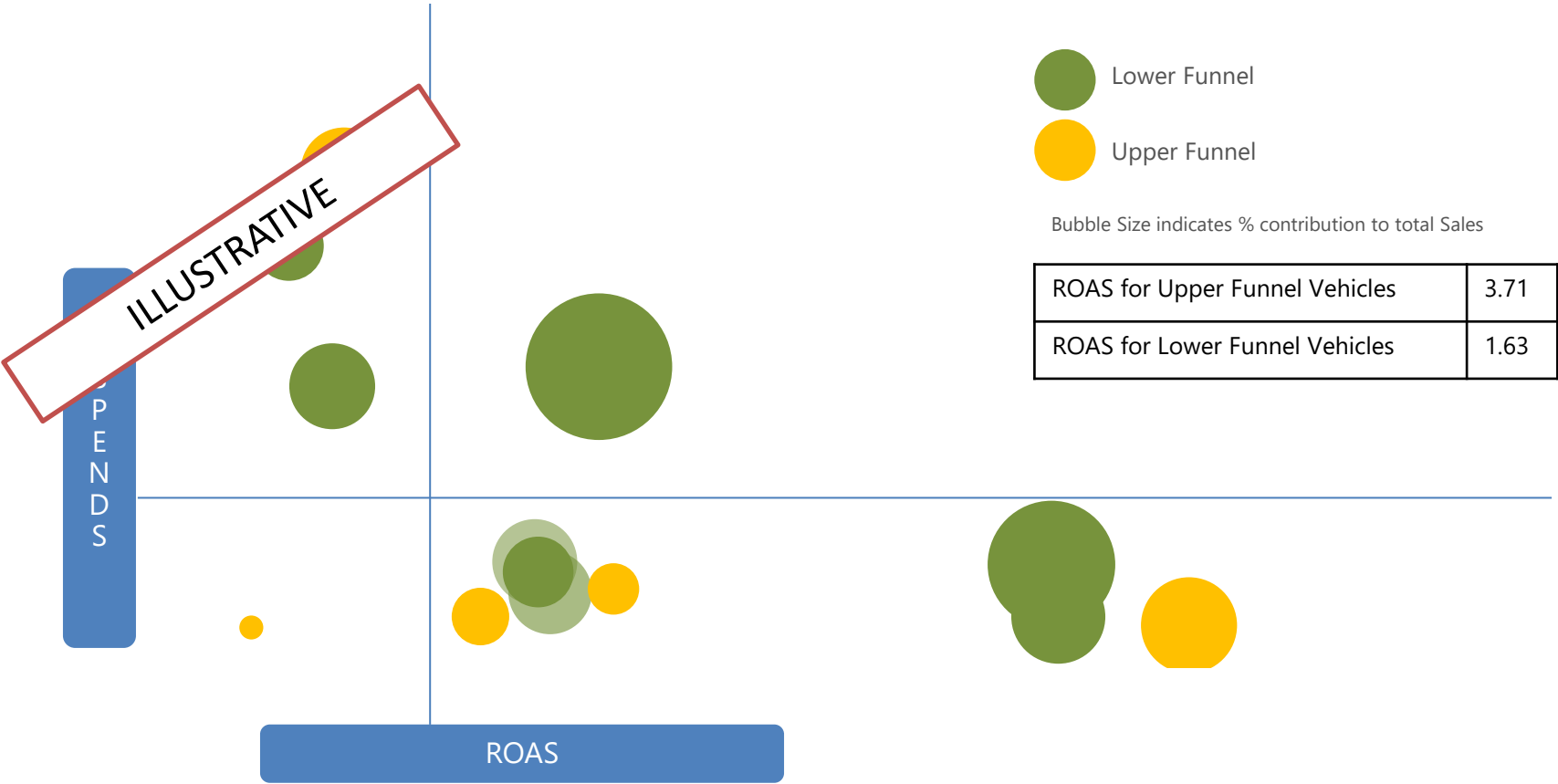
■ SHORT TERM ■ LONG TERM



LONG TERM EFFECT OF PS BRANDS IN Q1, Q2 OF CURRENT FISCAL

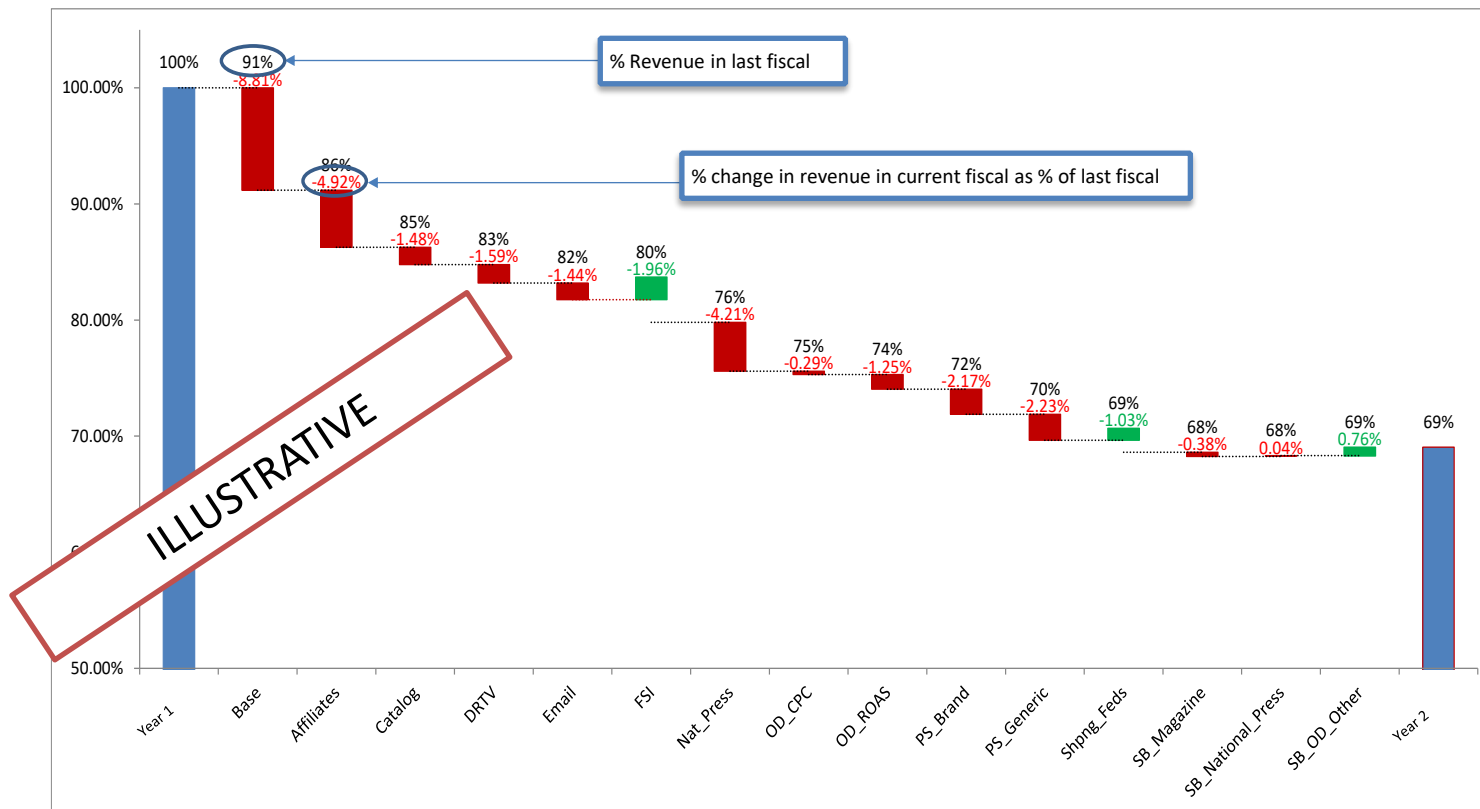


# What was the ROI of different marketing activities?

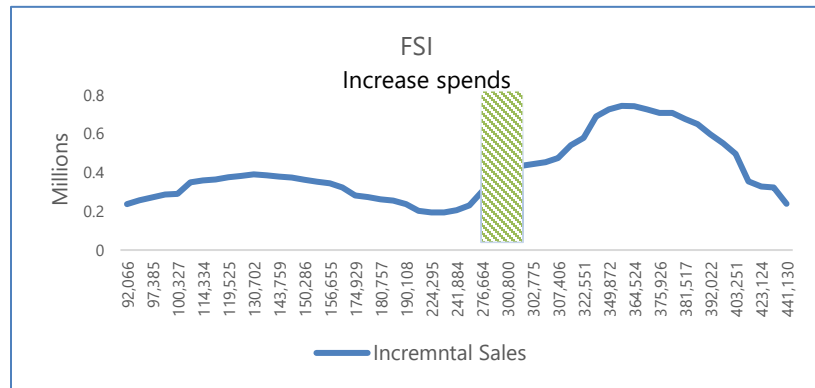
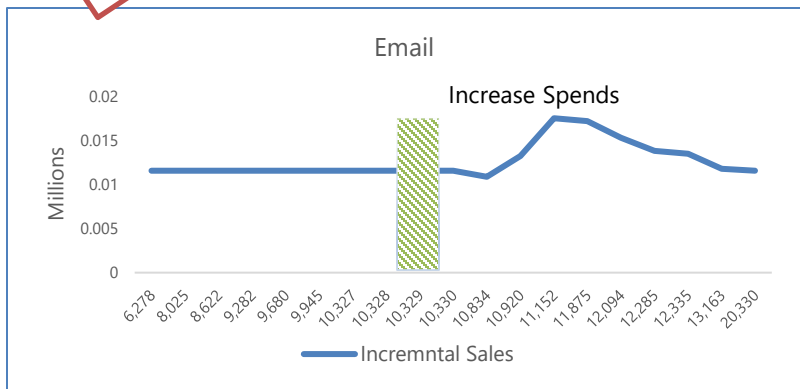
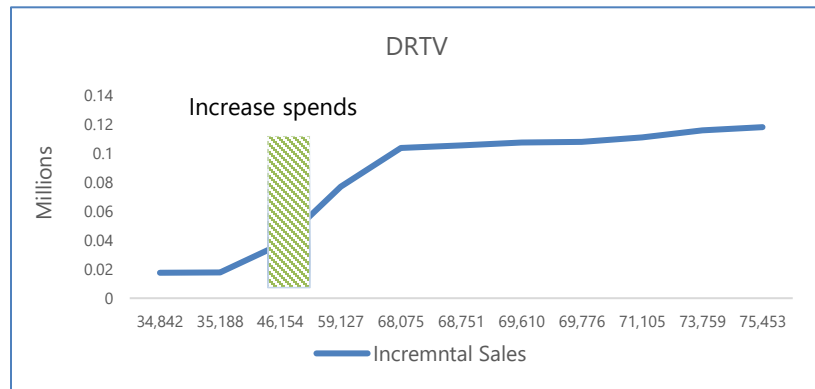
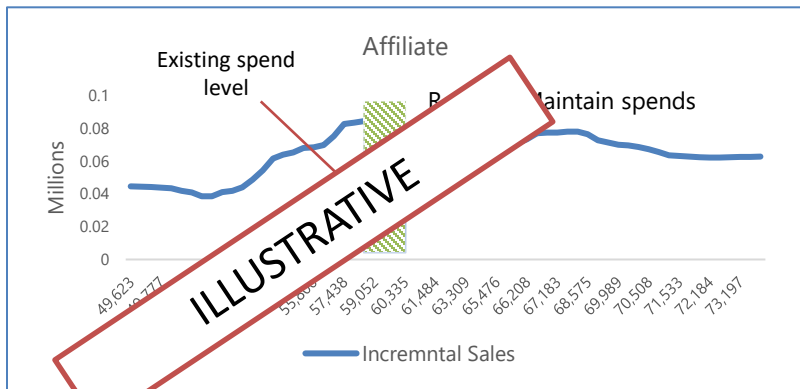




# Due To Charts: Which activities have contributed to positive movement in sales?



# Head room for different marketing Vehicles



# Optimization Results based on constraint from MMX

Marketing Activities	Planned spends for Next Fiscal year	Optimized spends for Next Fiscal year	% Change
TV	\$ 5,550,255	\$ 5,550,255	0%
Online Display	\$ 9,677,077	\$ 10,354,472	7%
Catalog	\$ 13,873,718	\$ 10,821,500	-22%
Paid Search	\$ 3,874,718	\$ 3,758,476	-3%
Direct Mail	\$ 4,457,820	\$ 4,859,024	9%
Trigger	\$ 4,257,023	\$ 4,427,304	4%
Assisted	\$ 2,452,393	\$ 2,452,393	0%
Mobile	\$ 2,278	\$ 3,416	50%
Pre-roll	\$ -	\$ 17,181	New Investments
Radio	\$ -	\$ 18,000	
Others	\$ 35,506	\$ 53,259	50%
FSI	\$ 2,055,870	\$ 2,055,903	0%
Email	\$ 30,722	\$ 46,082	50%
Print	\$ 623,625	\$ 624,374	0%
<b>Total Spends</b>	<b>\$ 46,891,003</b>	<b>\$ 45,043,640</b>	-4%
<b>Total Sales</b>	<b>\$ 387,306,977</b>	<b>\$ 398,926,186</b>	3%

ILLUSTRATIVE

Impact
<b>Marketing Savings = 1.8 M</b>
<b>Incremental Revenue = 11.7 M</b>