



MARKET MIX MODELING AND MARKETING ATTRIBUTION FOR B2B

Engagement Proposal

KEY POINTS OF OUR PROPOSAL TO DELL – EXECUTIVE SUMMARY

Our Company

- TheMathCompany is the fastest growing company in the space of data and analytics - we have been able to build a very impressive portfolio of customers since our inception. Our success comes from our hybrid operating model - a very strong focus on top quality talent & tech assets. Amongst other things, our clients most appreciate our ability to create impressive solutions for some of the most difficult problems that can be solved with data

Relevant experience in B2B marketing attribution & measurement

- We have experience in solving marketing mix modeling and marketing attribution problems for various companies specifically for B2B tech organizations. B2B businesses poses unique challenges in marketing measurement like isolation of impact of sales & quantifying impact of sale

Solution design uniquely customized for Dell

- Our solution is designed keeping current Dell context in mind. Pipeline is an ineffective measure of marketing efforts and Direct attribution can lead be under or overestimated return. It is important to incorporate and differentiate across various marketing touches & engagement

Team experienced working with Dell

- Our team consists of individuals who have closely worked with Dell and various Dell employees over the years. Our Dell context will ensure we ramp up fast and create relevant solution for Dell. We also believe that working with TheMathCompany will be familiar yet refreshing for Dell.

Agile, collaborative & flexible engagement model

- The Math Company is proposing an agile & collaborative way of working. We also have a flexible engagement model which will ensure we course correct as needed based on Dell priorities

Overall Proposal

- We are proposing and 6-month development & deployment timeframe with a dedicated team of offshore data scientists & onsite engagement manager to work on both projects. Dell has the option to retain or ramp down the team beyond the initial timeframe based on scope of future work.

MATHCO'S SOLUTION APPROACH TO ADDRESS KEY CHALLENGES OUTLINED FOR DELL

Key Challenges for Dell

- **Need for better understanding of existing customer base**
With nearly 1000 accounts mapped to individual sales reps, there is less focus on customizing marketing strategies and initiatives
- **Need for identifying effectiveness metric**
'Converted leads' or 'Dollar Estimate' are misleading indicators/impact metric as they are biased by the sales processes followed & input given by sales rep respectively
- **Quantify effectiveness based on efficacy rather than channel spend**

- **Revenue attribution alone will not provide a holistic picture**
- **Capturing impact based on pipeline generated will result in inflated marketing impact**

MathCo's Solution to Address challenges

MMX

- **Develop Customer segments**
- based on company details available at targeting stage (Firmographic details, geography, etc.,)
- **Identify channel success metric** that captures marketing outcome/success
- **Compute efficacy of marketing channels** in engaging the stakeholders
- **Driver analysis** to quantify the engagement metric on the impact metric

Market Attribution

Dual KPI to be designed to understand and quantify the value addition by marketing in sales

- **Unrealized RoI** - Opportunity Potential generated through marketing activities
- **Realized RoI** - Revenue contribution by marketing in closing sales deals

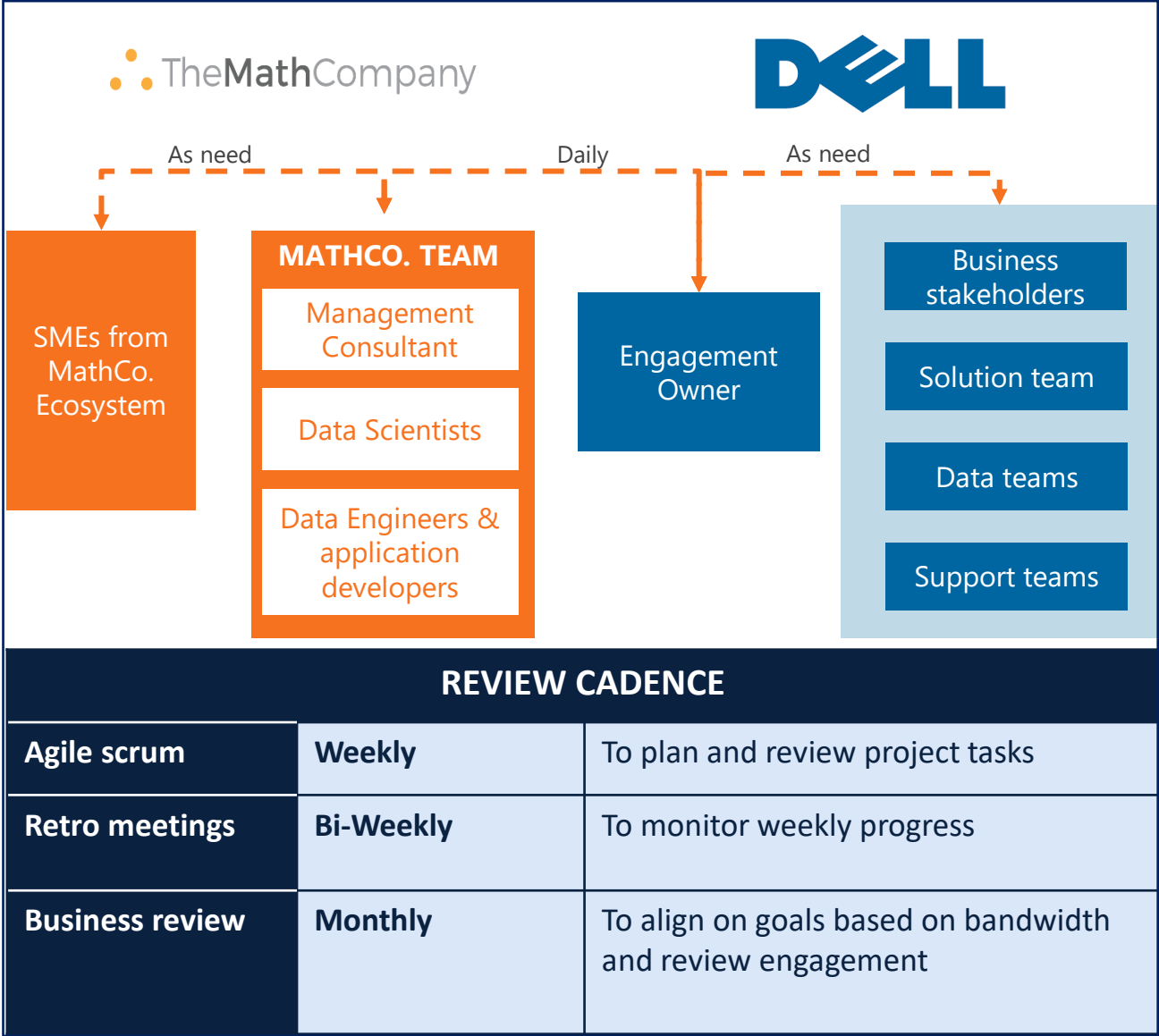
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PROJECT TIMELINES AND KEY DELIVERABLES

Solution Components	Activity Break up	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
1. Foundation Customer groups	Develop customer patterns			★ Customer Segments			
2. MMX	Identify channel success metric						
	Compute effectiveness			★ Framework to measure channel engagement			
	Driver analysis					★ Marketing Channel Impact	
3. Revenue Attribution	Compute Unrealized Rol			★ Model to predict lead propensity		★ Framework to compute Unrealized Rol	
	Compute Realized Rol					★ Model to estimate potential amount	
	Visualization tool to enable planning					★ Spend Attribution Model	

★ Key Deliverable

GOVERNANCE AND PRICING



Pricing Components	Duration	Total Cost of solution Development
Dedicated team 3 data scientists (Offshore) 2 data engineer (Offshore) 1 Management consultant (US)	6 months	\$360,000
<ul style="list-style-type: none">▪ Client partner to be based out of US and provide time zone coverage [travel to location subject to COVID-19 regulation]▪ SMEs would be involved to ensure best possible solution development▪ MathCo. assets [reusable modules, best practices] to be organically infused into the project		
Maintenance cost - \$8,000 per month post deployment <i>Maintenance can become a value add if the existing team is engaged for solving other problems based on Dell's priorities</i>		



DETAILED SOLUTION APPROACH

WHY DO WE NEED TO LOOK AT CUSTOMER COHORTS/SEGMENTS?

How does
effectiveness **vary**
across customer
segments?

Understand existing customer base

With nearly 1000 accounts mapped to individual sales reps, there is less focus on customizing marketing strategies and initiatives

Normalize effects of heterogenous customer base

Marketing effectiveness can vary from customer to customer depending on the relationship they have with the firm.

For example – the same initiative can have high incremental impact on new customers as compared to loyalist/retained customers where the true impact may be very low

Enhance Marketing Strategies

This will serve as the right foundation to understand customer preferences and help drive future marketing strategies by further customization

CUSTOMER SEGMENTATION – APPROACH

Company details available at the targeting stage will be leveraged for identifying customer segments

INPUTS

FIRMOGRAPHIC DETAILS

- Industry sector
- No. of Employees
- Revenue
- Market Position
- Investors
- NAICS or SIC code

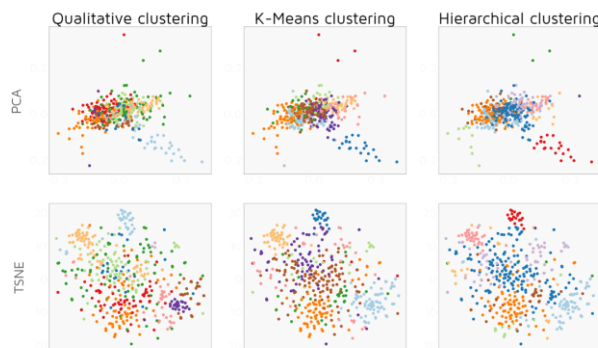
GEOGRAPHY DETAILS

- Country, state
- City tier – Metro
- Density

POINT OF CONTACT DETAILS

- Executive
- Function
- Parent Vs Subsidiary company

CUSTOMER SEGMENTATION



Multiple clustering approaches will be tried to choose a technique/approach that best identifies **distinct homogenous segments**

OUTPUTS – KEY INSIGHTS

1 HIGH GROWTH – HIGH INVESTMENTS SEGMENT

Start – ups with high funding

2 TECH SAVVY SEGMENT

Tech companies who are looking for advanced tech/equipment

3 LOW OPPORTUNITY SEGMENT

Mature organizations that are tough to crack

4 QUALITY BUYER SEGMENT

Companies that prioritize quality, service, etc., over price

5 HIGH COMPETITION SEGMENT

Price discounts/ negotiations will be the leading contributor

SAMPLE OUTPUT

HIGH GROWTH – HIGH INVESTMENTS SEGMENT

Segment Details

Number of
Accounts

1,234

Average
Revenue

\$ 5.5 M

Estimated
Potential

\$ 20 M

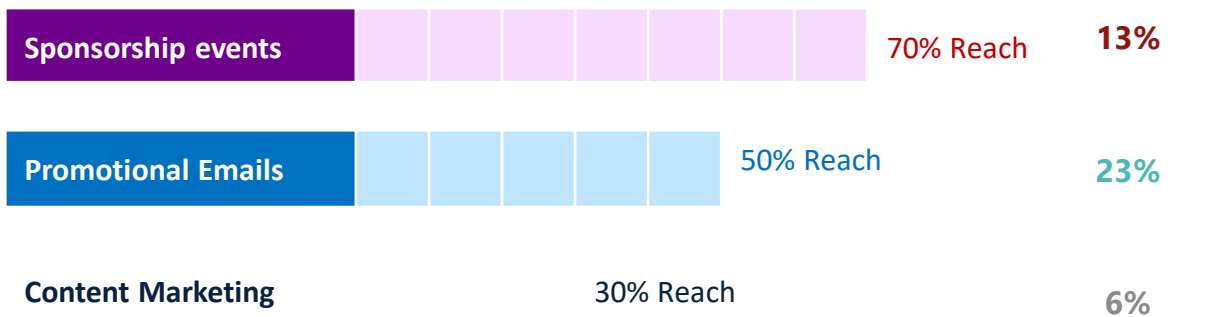
Industry Type:

Product software Companies, IT
companies,Average
Company
Tenure

2 years

Segment Marketing Activity Details

Top Marketing Channels



TECH SAVVY SEGMENT

Segment Details

Number of
Accounts

5,666

Average
Revenue

\$ 50 M

Estimated
Potential

\$ 25 M

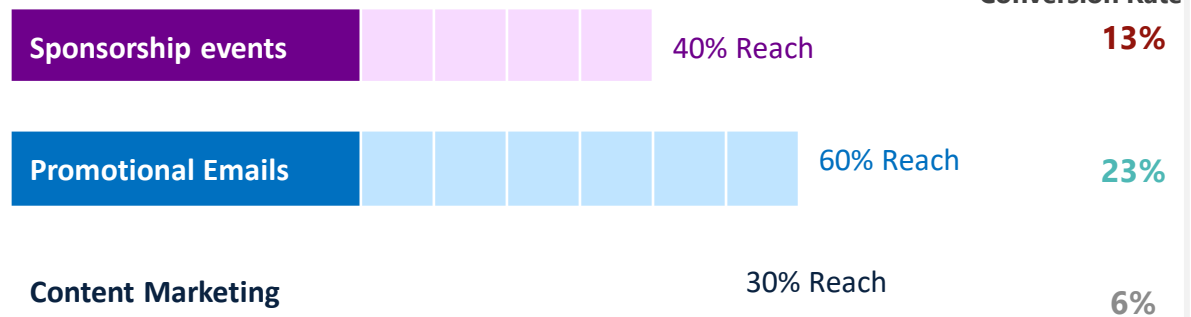
Industry Type:

Product software Companies, IT
companies,Average
Company
Tenure

15 years

Segment Marketing Activity Details

Top Marketing Channels



QUANTIFYING MARKETING EFFECTIVENESS

What are **the right metrics** to measure effectiveness?

Impact Metric



Identifying the right Impact metric that captures the effects of only marketing activities without diluting it with other activities in the sales cycle

'Converted leads' or 'Dollar Estimate' are misleading indicators/impact metric as they are biased by the sales processes followed & input given by sales rep respectively

Engagement Metric



Capturing the right Engagement metric for various marketing channels before assessing their effectiveness on the Impact Metric

'Dollar Spend' across various marketing vehicles are misleading as it doesn't capture the interaction enabled (efficacy) by the respective channel

Quantifying Effectiveness



Quantifying the effectiveness of various marketing channels by defining the relationship between the Impact & Engagement metric

OUR APPROACH TO MEASURING MARKETING EFFECTIVENESS



IMPACT METRIC

Identify the metric that truly captures the true outcome/success of marketing – **not conversion but close to conversion**

Example - **Presence of Sales estimate** on a lead can be a proxy to indicate that the lead was kept engaged enough to respond to sales team when the call happened



ENGAGEMENT METRIC

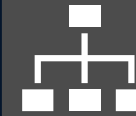
Captures the efficacy of marketing channels in engaging the stakeholders to push them to the next stage in sales cycle

Examples:

Webinar: Attendance, Chats, Polls

E-mails: Offers, coupons, click rate

Website: Downloaded brochures



QUANTIFY EFFECTIVENESS

Driver analysis to quantify the engagement metric on the impact metric and thereby calculating the effectiveness of individual and collective marketing channels

Example – Logistic regression, decision trees, generalized linear modelling

Impact Metric = Function (Engagement Metric)

Presence of Sales Estimate

Driver Analysis

Participation/Reaction to marketing programs

SAMPLE OUTPUT

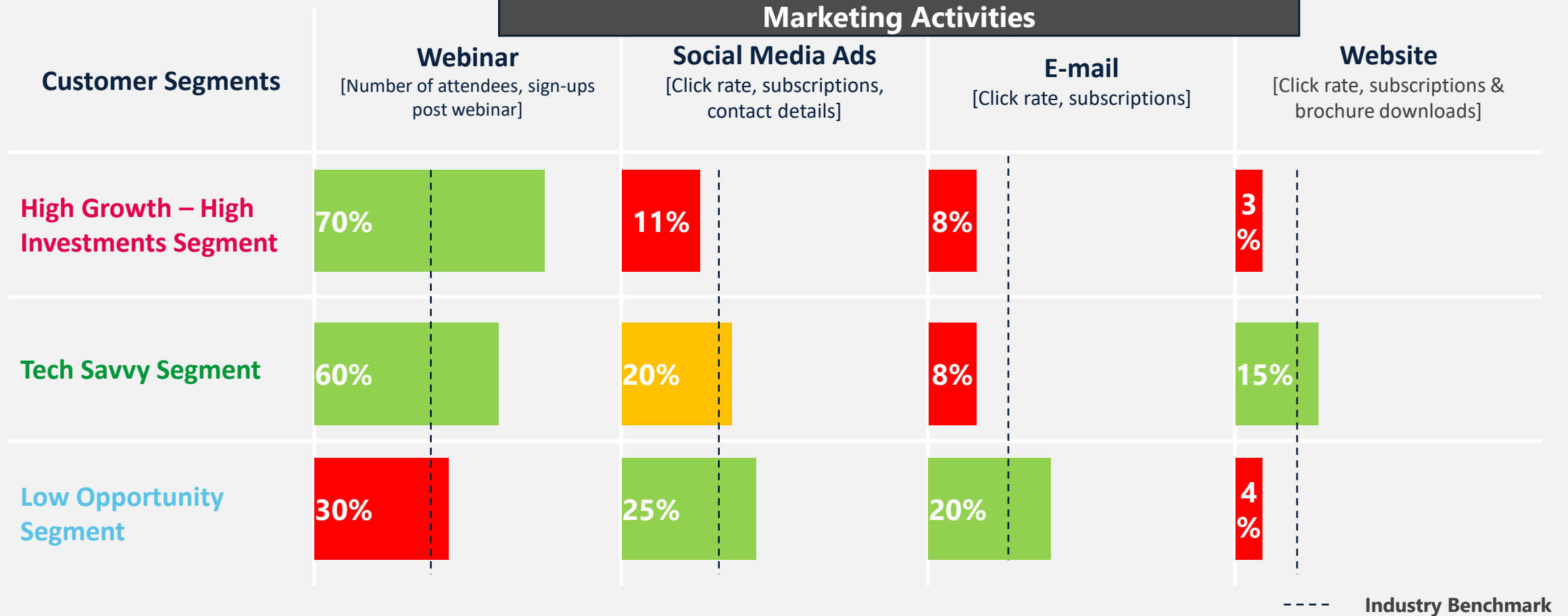
Impact Metric = Function (Engagement Metric)

Presence of Sales Estimate

Driver Analysis

Participation/Reaction to marketing programs

Marketing Activities



ATTRIBUTING REVENUE TO MARKETING

How to **attribute revenue** to marketing initiatives?

Opportunity Potential



Attributing **opportunity potential** to marketing activities prior to sales team takes over the lead for closure

A **non-inflated estimate** must be generated to accurately capture the opportunity potential generated by marketing activities



Revenue Generated



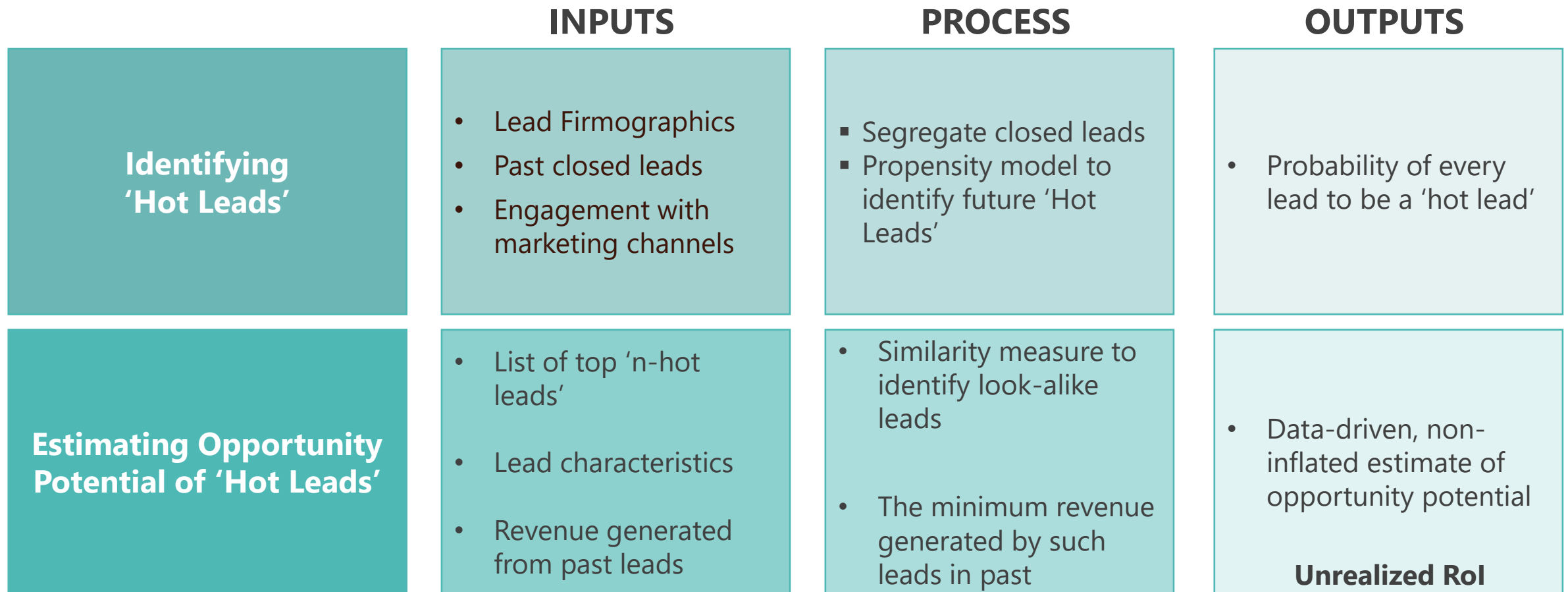
Segregating marketing impact from sales impact to be able to attribute revenue individually to both processes

All touchpoints must be considered for attributing revenue from closed leads to both marketing & sales processes

DUAL KPI TO BE DESIGNED TO UNDERSTAND AND QUANTIFY THE VALUE ADDITION BY MARKETING IN SALES

	Unrealized ROI 	Realized ROI 
What Is it	<ul style="list-style-type: none"> Opportunity Potential generated through marketing activities 	<ul style="list-style-type: none"> Revenue contribution by marketing in closing sales deals
Why Is it important	<ul style="list-style-type: none"> Efficacy Assessment of marketing initiatives in generating more & better leads over time 	<ul style="list-style-type: none"> Assess the contribution of marketing initiatives to closed leads/revenue generated
Whom To share with	<ul style="list-style-type: none"> Internally marketing team Marketing Stakeholders 	<ul style="list-style-type: none"> External stakeholders Sales & Marketing group
How To compute it	<ul style="list-style-type: none"> Classify generated leads as 'Hot' & 'Cold' Estimate the revenue generated by 'Hot' leads in the past 	<ul style="list-style-type: none"> Identify all touchpoints a closed lead went through Attribute sales revenue across the multiple touchpoints
Which Questions are answered	<ul style="list-style-type: none"> Are my marketing initiatives generating good leads? 	<ul style="list-style-type: none"> Which touchpoints/activities are boosting my sales?

OUR APPROACH TO CALCULATE UNREALIZED ROI



OUR APPROACH TO CALCULATE REALIZED ROI



Data Leveraged:

Marketing Touchpoints

Webinars
Warm Calling
Content Marketing

Sales Touchpoints

Demo by Sales Rep
Discounts & Promo Offers
Negotiations & Agreement

#Leads at each stage

Lead monitoring tool
(Hubspot, Vtiger, FreshSales etc.)

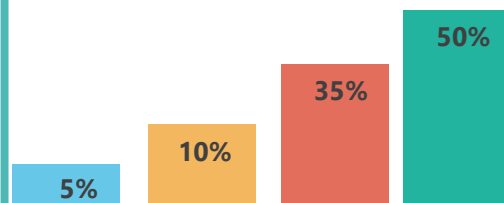
Revenue generated

Final \$ sales of the contract signed with
the respective account

Attribution Approaches : Comparative landscape

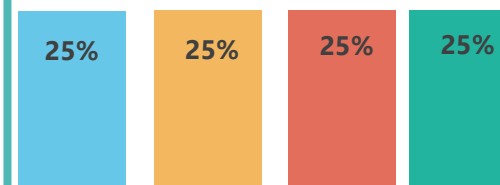
Time Decay Attribution

- Biased towards last stage as it leads to quote generation
- Ideally good for marketing campaigns with limited duration



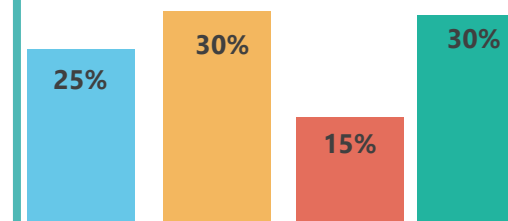
Linear Attribution

- Value equally distributed across all touch points
- Good when data is scarcely available for all stages



Markov Chain Attribution

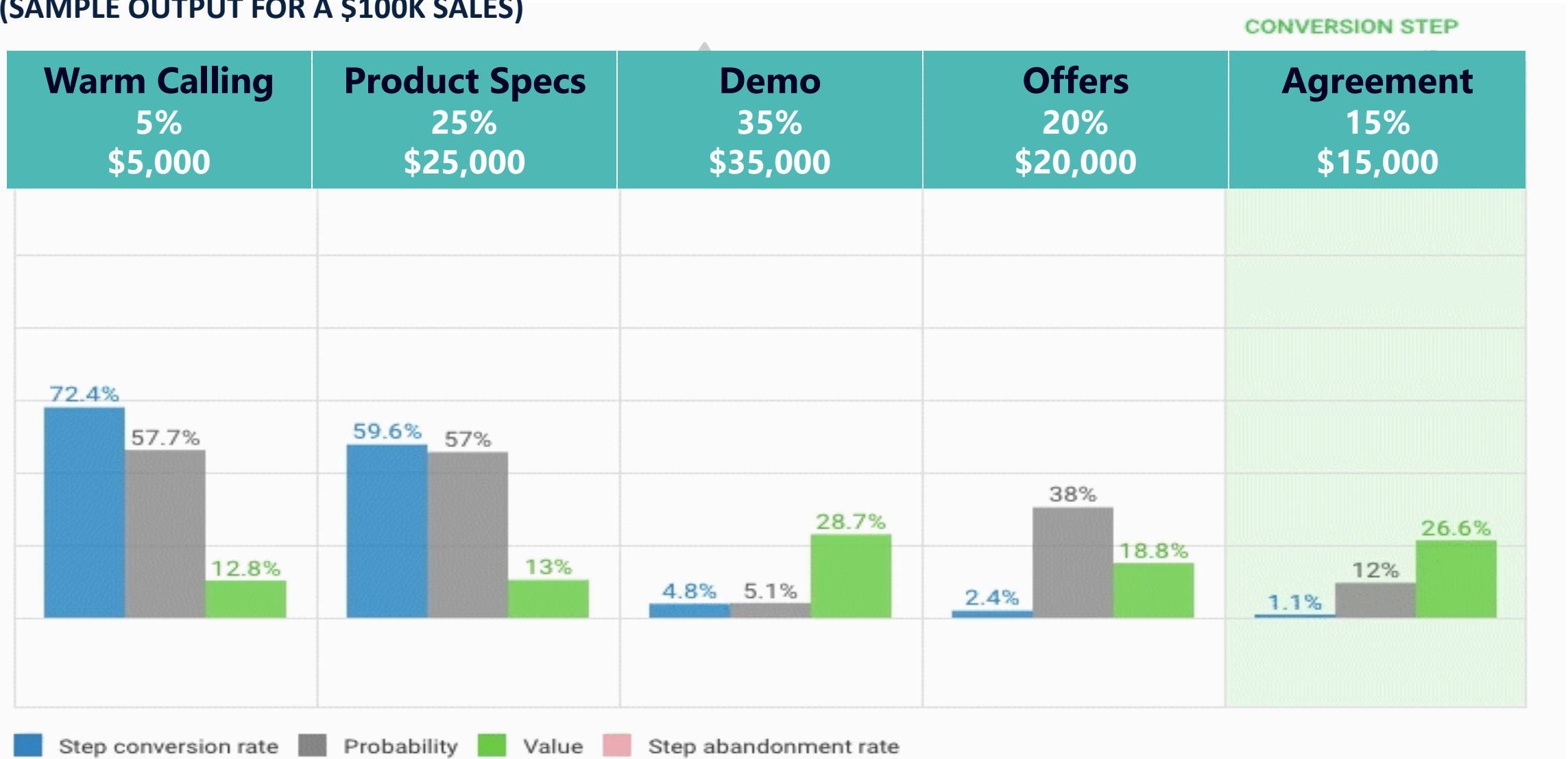
- Linear state space existing for most 'real-to world' process
- 'Removal Effect' leveraged to keep the solution easy to understand



- Input comes only for 'Hot Leads' (having a high propensity to be converted, based on past data)
- Dependent on the data quality and availability – most appropriate attribution modelling is deployed to identify contribution by multiple touchpoints in a successful sales cycle

REALIZED ROI – THROUGH ATTRIBUTION MODELLING

(SAMPLE OUTPUT FOR A \$100K SALES)





BRINGING IT ALL TOGETHER

Marketing Effectiveness and Planning Tool

Marketing Effectiveness Measurement Tool

REGION  TIME PERIOD 

Marketing Spend

\$ 40M | 12%

Marketing Effectiveness

34% | 2%

Realized Marketing
RoI

1.2 | 10%

Unrealized Marketing
RoI

2.2 | 12%

HIGH GROWTH –
HIGH INVESTMENTS
SEGMENT

TECH SAVVY
SEGMENT

LOW OPPORTUNITY
SEGMENT

QUALITY BUYER
SEGMENT

HIGH
COMPETETION
SEGMENT

Marketing Effectiveness	34%	23%	9%	12%	26%
Realized Marketing RoI	2.2	1.8	0.9	1.1	0.7
Unrealized Marketing RoI	3.4	2.5	1.5	2	0.9

Marketing Effectiveness Measurement Tool

REGION

TIME PERIOD

HIGH GROWTH – HIGH INVESTMENTS SEGMENT

Marketing Effectiveness34% | 2%

Realized Marketing Rol1.8 | 10%

Unrealized Marketing Rol2.5 | 12%

Segment Details

Number of Accounts1,234

Average Revenue\$ 5.5 M

Estimated Potential\$ 20 M

Average Company Tenure2 years

Industry Type:Product software Companies, IT companies,

Segment Marketing Activity Details								
Marketing Channels	Marketing Spend (in USD)	Marketing Reach	Total Leads Generated	Marketing Effectiveness			Realized Channel RoI	Unrealized Channel RoI
Webinar	0.5M	1,000	200	<div><div></div></div> 70%			1.8	2.1
Social Media Ads	100K	1,200	20	<div><div></div></div> 11%			1.3	3
E-mail	200K	1,200	50	<div><div></div></div> 8%			0.9	2.3
Website	8K	300	10	<div><div></div></div> 3%			1.1	1.1
							---- Industry Benchmark	