

Capstone Project

Background and Objectives

Marketing Analytics

Background

1. Client

A leading FMCG company of XXX which manufactures and sells a host of products like Biscuits , Coffee , Juice , Chocolates and many more .

2. Background

The company has PAN country business in 7 brands of following product Categories

B1 : Coffee

B2 : Biscuits

B3 : Juice

B4 : Chocolates

B5 : Ice cream

B6 : Bottled water

B7 : Baby food

The company launched a new flavor variant of coffee brand in January 2023. The marketing campaign was executed for their Channel Partners and end consumers before the product launch



Background

For Channel Partners, the company introduced the product and reward system through SMS, email and call.

For end consumers, product samples were given and initial opinion was understood through primary market research

3. Objective

The objective of the study was three-fold

- To identify which Channel partners responded and who to target first in the next planned campaign (EDA/Modeling)
- To identify the most effective communication channel/s for them
- To analyze the responses collected from end consumers and see if minor tweaks can be done to improve the product



Background

4. Data

The following data is available for analysis:

- Channel partners: Transactions of the Channel partners two years prior to the campaign
- Channel partners: Campaign Details
- Channel partners: Campaign Response Data
- Channel partners: Region
- Consumer: Responses about new coffee flavour



Understanding the Channel partner Data



Channel partner Information : Transaction Data

Content

Transaction data of all 90,000 Channel partners for the company . (2021 and 2022)
500,000 transactions to describe the transaction details of each Channel Partner by "Month" and "Brand"

ChannelPartnerID	Month	Year	Brand	Sales
10000	5	2022	B4	22354
10000	10	2022	B5	11473
10000	8	2022	B1	29822
10000	10	2022	B3	6152
10000	1	2021	B2	8911
10000	4	2021	B2	35818
10001	3	2022	B2	43112
10001	10	2021	B5	15331
10001	12	2022	B2	5802
10001	7	2022	B1	6249
10001	6	2022	B1	21269
10002	12	2021	B4	7687
10002	10	2021	B5	40803
10002	5	2021	B1	10263

Columns	Description	Type	Measurement	Possible values
Channel partnerID	Channel partner's ID	numeric	-	-
Month	Month	factor	-	12
Year	Year	factor	-	2021, 2022
Brand	Brand	factor	-	B1, B2, B3, B4, B5, B6, B7
Sales	Sales	numeric	-	Positive

Channel partner Information : Campaign Details Data

Content

Campaign was run in January 2023 for the new variant in Brand 1 : Coffee
Sample Size : 1228 Channel partners' campaign communication data to describe which Communication channel was used to contact them

ChannelPartnerID	email	sms	call
10048	1	0	0
10073	1	0	1
10258	1	0	0
10416	1	0	1

Columns	Description	Type	Measurement	Possible values
Channel partnerID	Channel partner's ID	numeric	-	-
email	No. of emails	integer	-	Positive numbers
sms	No. of sms	integer	-	Positive numbers
call	No. of calls	integer	-	Positive numbers

Channel partner Information : Campaign response Data

Content

The response of the 1228 Channel partners for the Campaign is captured .
Sample Size : 1228

ChannelPartnerID	response	n_comp	loyalty	portal	rewards	nps	n_yrs
18263	1	2	0	1	0	7	8

Columns	Description	Type	Measurement	Possible values
Channel partnerID	Channel partner's ID	numeric	-	-
response	Customer's response to campaign	factor	-	1 = responded 0 = Did not respond
n_comp	number of complaints in last 3 months	integer	-	Positive values
loyalty	member of loyalty program(Yes=1)	factor	-	0,1
portal	active on web portal(Yes=1)	factor	-	0,1
rewards	Redeemed reward points last month(Yes=1)	factor	-	0,1
nps	Net Promoter Score	integer	-	0-10
n_yrs	number of years in business with the company	integer	-	Positive values

Channel partner Information : Region

Content

Region of business for each of 90,000 Channel Partners

ChannelPartnerID	Region
10000	North
10001	South
10002	West
10003	South
10004	East
10005	West
10006	West
10007	South

Columns	Description	Type	Measurement	Possible values
Channel partnerID	Channel partner's ID	numeric	-	-
Region	Region of customer	factor	-	East, North, South, West

10014 West



Understanding the Consumer/ End user Response



Consumer Information : Responses

Content

The response of consumer after a week of the samples given out were captured
Sample Size : 74

It is good.I keep some small packs for the guests
good tasting. But too expensive .
The pack is not nice esp for the price . But the taste is good
This isn't like the original.it's a concentrate. Big difference!!!!
Yum yum Yum
Wasted before I even got to use it.the packaging is not good . Did the m
Price increase is tooooooooooooooooooooooo much
4 stars for such a good coffee . I love it that it suddenly wakes me up
Tasty . Goes item to have in the fridge for the sudden craving of Chocol
Disappointed in the company
Excellent creamer, works out to be economical and convenient.
Such less calaries . WOW WOW WOW
Arrived leaking inside box! Poor pump des
So happy to have tried this!

Description	Type
Consumer Responses	text

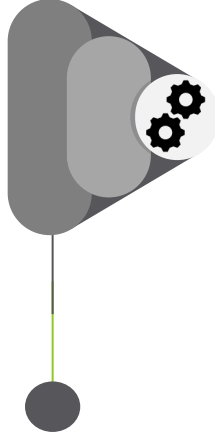
Next steps

Data management



- Compile all 4 data files based on Channel partner ID of 1228 Channel partners who have taken part in the campaign.
- Data cleaning , Handling missing values and completing Basic Data checks
- Create variables other than existing data variables. For ex, Brand engagement : How many brands does each Channel partner buy in a particular year

Descriptive Statistics & Data visualization



- Understanding the data better like checking responses region wise , region wise actively engaged Channelpartners etc.
- How can this data be presented better visually ?

Predictive modelling



- Answer the objectives
 - a)To identify which Channel partners responded and who to target first in the next planned campaign
 - b)To identify the most effective communication channel/s for them
- Using different Predictive model techniques to find Significant variables
- Ensure you follow all steps like Train and test data , checking for Multicollinearity
- Check if any other ML technique fits better

Text mining



- Understand the customer responses using various Text mining Techniques
- Answer the objective: To analyze the responses collected from end user and see if minor tweaks can be done to improve the product