MARK3054 -Research Plan

4x Marketing Consultants

Research Plan by: Shaantam z5207798 Faiyam z5258151 Xichen z5221864 Jiaying z5274301 Define one managerial problem that you plan to address in this project and the research questions associated with the problem

Jennifer the manager, wants to answer the question:

How to estimate the value of a customer in the loyalty program, predict if a customer will churn, and manage the customers accordingly?

To assist Jennifer to answer this question we need to scrutinise the corresponding associated questions.

Managerial Problem: Associated Questions

Manager Problem: How to estimate the value of a customer in the loyalty program, predict if a customer will churn, and manage the customers accordingly?

- 1. What are the characteristics of a valuable customer?
- 2. What type of customers are likely to refer to our loyalty program to their friends and family?
- 3. What are the key independent variables which will determine the loyalty of our customers to the loyalty program?

2) Specify information needed to answer the research questions

- 1. What are the characteristics of a valuable customer?
- gender, race, homecity, age
- if own a car, if own a credit card
 - 2. What type of customers are likely to refer to our loyalty program to their friends and family?
- NetPromoter
- 3. What are the key independent variables which will determine the loyalty of our customers to the loyalty program?
- Sat_Program, Sat_FastFood, Sat_Grocery, Sat_Petrol

3) Conduct descriptive statistics analysis of the datasets (Data type)

Data	MemberID	Gender	Race	0wnCar	OwnCreditCard	HomeCity
Data type	Nominal	Nominal	Nominal	Nominal	Nominal	Nominal

Data	Active2015	Active2016	Sat_Program	Sat_FastFood
Data type	Nominal	Nominal	Interval	Interval

Data		Sat_Grocery	NetPromoter	Gender_F	Race1	Race2	Car	CCard
Data type	Interval	Interval	Interval	Nominal	Nominal	Nominal	Nominal	Nominal

Data	CityA	CityB	CityC	CityD	CityE	CityF	Act_15	Act_16
Data type	Nominal							

Descriptive Statistics Data Analysis (Customer) Sample size: 1995

	NetPromoter	Gender_F	Race1	Race2	Car	CCard
Mean	5. 940350877	0.5047619	0.537343	0.364411	0.434586	0.442105
Median	6	1	1	0	0	0
Standard Error	0.059577436	0.01119664	0.011166	0.010778	0.011101	0. 011122

	CityA	CityB	CityC	CityD	CityE	CityF	Act_15	Act_16
Mean	0. 25764411	0.10776942	0.097744	0.093734	0.074185	0.066165	1	0.751378
Median	0	0	0	0	0	0	1	1
Standard Error	0.009793854	0.00694422	0.00665	0.006527	0.005869	0.005567	0	0.009679

	Sat_Program	Sat_FastFood	Sat_Petrol	Sat_Grocery
Mean	7. 262656642	7. 195488722	8. 078195489	6. 759899749
Median	7	7	8	7
Standard Error	0.000816569	0.000797324	0.000586772	0.000796869

Descriptive Statistics Data Analysis

	SalesAmt	PointReward	Sales_F	Sales_P	Sales_G
Mean	26. 13777012	25. 75489099	0. 139025	0.780505	0.08047
Median	20. 4	20	0	1	0
Standard Error	0. 17983758	0.180002239	0.001653	0.001978	0.0013
Sample size	43805	43805	43805	43805	43805

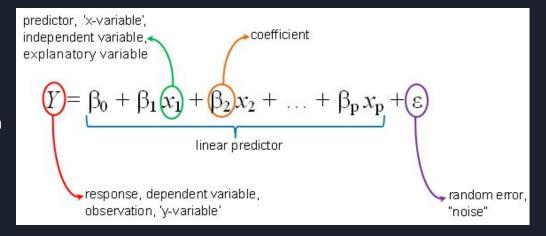
(Data from purchase record)

	RedeemPoint	Redeem_F	Redeem_P	Redeem_G
Mean	802. 3682589	0.81972265	0. 180277	0
Median	650	1	0	0
Standard Error	35. 48008265	0.015101377	0.015101	0
Sample size	649	649	649	649

(Data from redeem record)

What do we currently know? Using R to find significant relationships.

- Relationship between satisfaction of program and Fast Food, Petrol and Grocery Chains
- What the relationship between Gender, Homecity is with Satisfaction of the loyalty program.
- Credit Cards, Activity in 2016



Relationships we want to continue to research into, as we learn new techniques.

- Direct relationship between a customer's satisfaction with the loyalty program and their willingness to recommend it (Positive relationship)
- Relationship between a customer's satisfaction with the fast food, grocery and petrol chains and their satisfaction with the loyalty program (What is the relationship based on the chain)
- Redeemed points relationship with NPS (Higher the points better the NPS?)
- Purchase amount per customer with NPS (Higher the purchase higher the NPS?)
- Credit card and Sales Amount (Do credit cards provide an indication of high expenditure?)
- Activity 2015, 2016 (What is the retention Rate)
- Car and Sales Firm/Redeem Firm (Does having a car affect buying habits?)
- Age group buckets relationship with purchasing habits (What age groups are our main buyers)

Relationships we want to continue to research into, as we learn new techniques.



Understand customer behaviour at the individual level (What is a valuable customer)



How likely is someone to refer the program to a friend?
(WOM marketing)



Likelihood of churning and the impact on the chains. (Monetary impact) Questions and Answers