## **Marketing Campaign Data Analysis**

\$30.42M

**Total spending** 

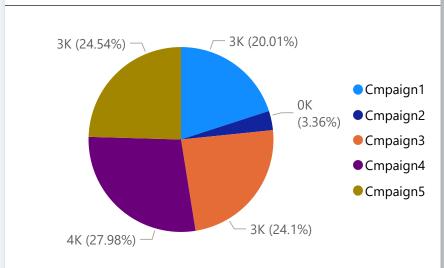
13K

**AcceptedCmpOverall** 

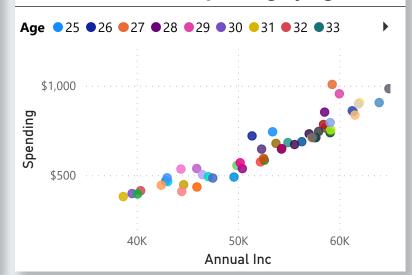
51.80K

**Average Income** 

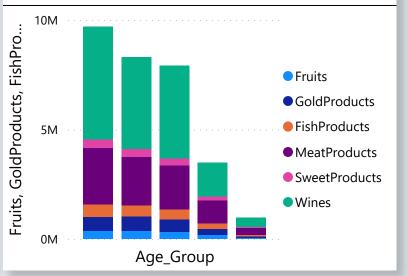
#### **Total Accepted Campaign**



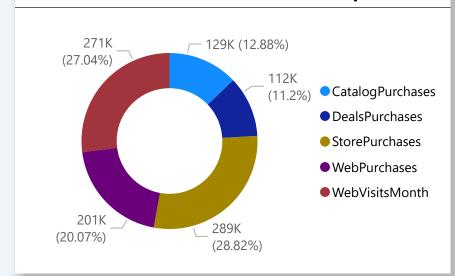
#### **Annual Income and Spending by Age**



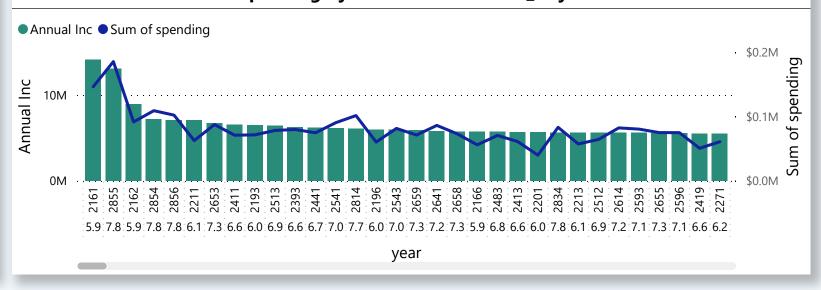
#### **Spending On product by Age\_Group**



#### **Total No. of Purchases and Web visits perMonth**



#### **Annual Income and Total spending by Years and Customer Days**

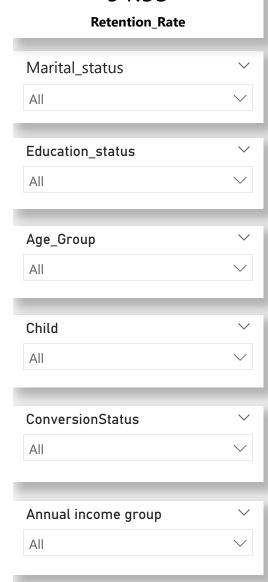




## **Cohort Analysis to Improve Customer Retention**



#### 91.53



FirstPurchaseDate

ΑII

## Customer Retention On the basis of Time

Cohort Month	1	2	3	4	5	6	7	8	9	10	11	12
April 2016	2267	2267	2267	2267	2267	2267	2267	2267	2267	2267	2267	2267
April 2017	2119	2119	2119	2119	2119	2119	2119	2119	2119	2119	2119	2119
August 2015	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203
August 2016	2274	2274	2274	2274	2274	2274	2274	2274	2274	2274	2274	2274
December 2015	2274	2274	2274	2274	2274	2274	2274	2274	2274	2274	2274	2274
December 2016	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962	1962
February 2016	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017
February 2017	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969
January 2016	2440	2440	2440	2440	2440	2440	2440	2440	2440	2440	2440	2440
January 2017	1881	1881	1881	1881	1881	1881	1881	1881	1881	1881	1881	1881
July 2016	2284	2284	2284	2284	2284	2284	2284	2284	2284	2284	2284	2284
July 2017	927	927	927	927	927	927	927	927	927	927	927	927
June 2016	2191	2191	2191	2191	2191	2191	2191	2191	2191	2191	2191	2191
June 2017	1746	1746	1746	1746	1746	1746	1746	1746	1746	1746	1746	1746
March 2016	2370	2370	2370	2370	2370	2370	2370	2370	2370	2370	2370	2370
March 2017	2050	2050	2050	2050	2050	2050	2050	2050	2050	2050	2050	2050
May 2016	2327	2327	2327	2327	2327	2327	2327	2327	2327	2327	2327	2327
May 2017	2512	2512	2512	2512	2512	2512	2512	2512	2512	2512	2512	2512
November 2015	2192	2192	2192	2192	2192	2192	2192	2192	2192	2192	2192	2192
November 2016	2264	2264	2264	2264	2264	2264	2264	2264	2264	2264	2264	2264
October 2015	2131	2131	2131	2131	2131	2131	2131	2131	2131	2131	2131	2131
October 2016	2367	2367	2367	2367	2367	2367	2367	2367	2367	2367	2367	2367
September 2015	1911	1911	1911	1911	1911	1911	1911	1911	1911	1911	1911	1911
September 2016	2318	2318	2318	2318	2318	2318	2318	2318	2318	2318	2318	2318
Total	49996	49996	49996	49996	49996	49996	49996	49996	49996	49996	49996	49996

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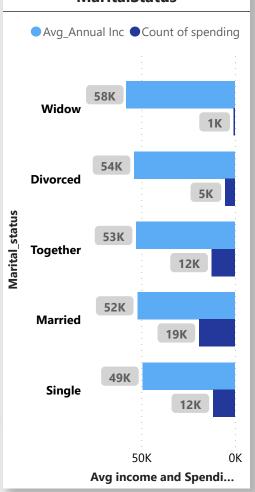
18.21

Conversion Rate

### **50K**

Active customers

## Spending and avg Income by MaritalStatus





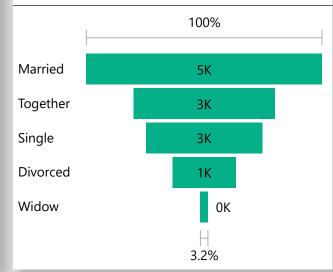
### **Useful Insights**



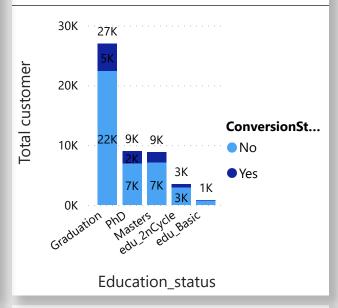
## <u>Total Customers participated in different Campaigns over the Time(year,month)</u>

Year	Month	Total customers	Cmpaign1	Cmpaign2	Cmpaign3	Cmpaign4	Cmpaign5
2016	May	2327	94	15	115	199	182
2016	January	2440	117	24	151	200	177
2016	August	2274	89	12	177	201	170
2017	March	2050	137	20	131	207	169
2016	September	2318	133	13	164	169	161
2015	October	2131	103	30	156	191	140
2016	October	2367	116	24	191	174	139
2015	November	2192	113	27	106	191	138
2017	April	2119	104	26	127	179	138
2016	February	2017	124	16	137	132	137
Total		49996	2554	429	3076	3570	3132

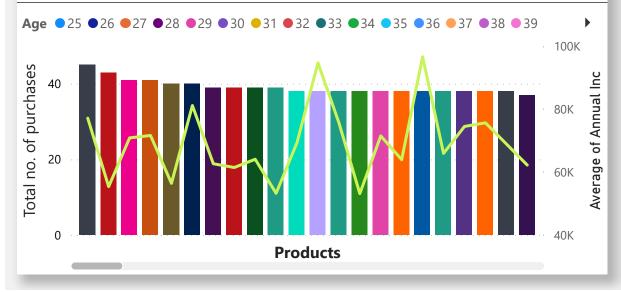
# Total Accepted Cmpaigns and Conversion\_Rate by Marital\_status



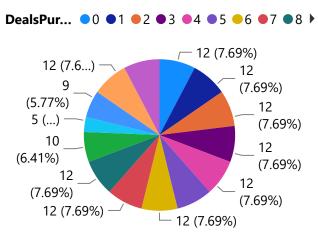
#### **Conversion\_Status by Education**



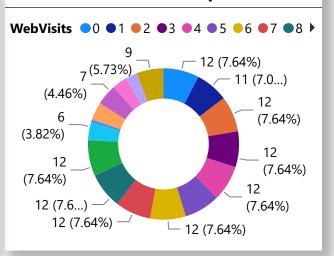
#### Total Purchases per unit Product by avg of Income & Age\_Group



## **Total Catalog purchase versus Catalog purchase with discount**



### Number of WebPurchases Versus Number of Web Visits per Month

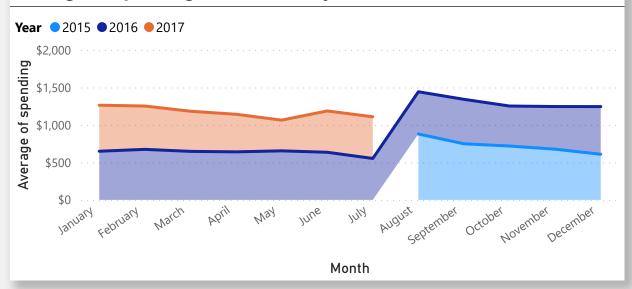




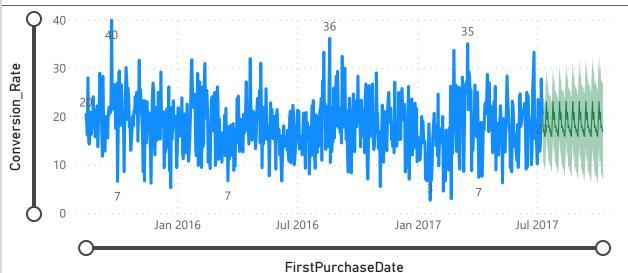
### **Customer behaviour, Conversion rate and Cmpaigns Trends**



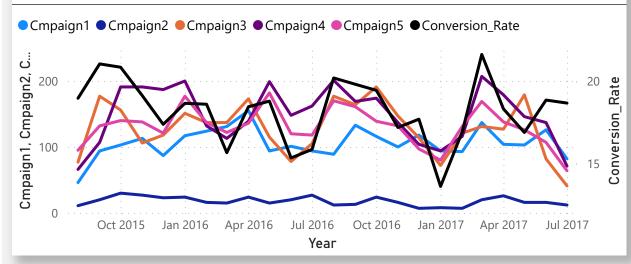
#### **Average of spending on Products by Month and Year**



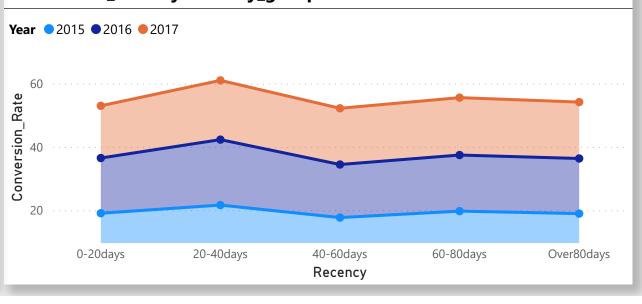
#### Forecasting Conversion\_Rate for 3 month by FirstPurchaseDate



# Trends of Cmpaign1, Cmpaign2, Cmpaign3, Cmpaign4 and Cmpaign5 by Year, Quarter and Month and Conversion Rate



#### Conversion\_Rate by Recency\_group and Year



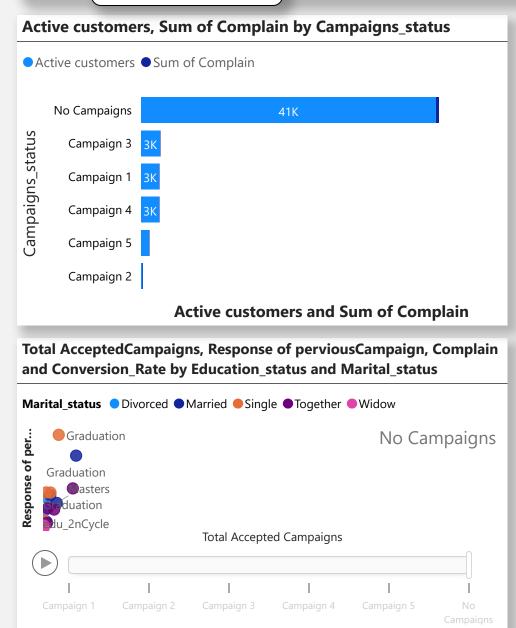


434

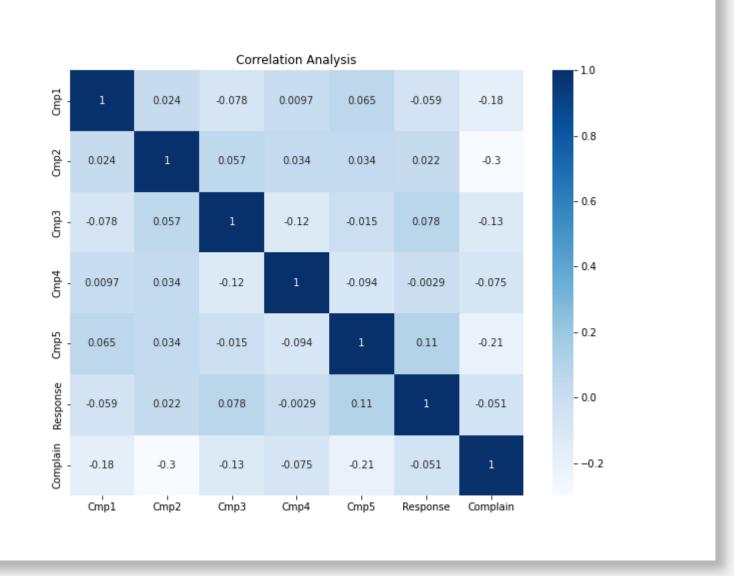
## **Complain Analysis and Correlation Analysis**



**Total Complain** 



Correlation between Campaign1, Campaign2, Campaign3, Campaign4, Campaign5, Response of pervious Campaign and Complain





## **Heatmap to create interactive report**

#### **Correlation diagram** Correlation Analysis between Campaigns AcceptedCmpOverall 0.31 0.68 -0.013 0.34 -0.0049 -0.0082 0.015 0.26 0.28 Cmp1 -0.15 0.094 0.23 0.38 -0.016 0.29 0.016 0.35 -0.0036 0.023 0.21 - 0.8 Cmp2 0.31 0.15 0.041 0.23 0.18 -0.004 0.12 0.082 -0.012 0.00028 0.0098 0.067 Cmp3 0.094 0.041 -0.055 0.072 0.013 0.22 -0.019 -0.012 0.025 -0.052 -0.012 0.0061 0.33 Cmp4 -0.23 0.23 -0.055 -0.015 0.17 0.23 -0.0048 0.25 -0.0038 0.069 0.2 - 0.6 Cmp5 -0.38 0.18 0.072 0.33 -0.017 0.31 0.34 -0.0037 -0.00012 0.0013 0.22 -0.015 Complain - -0.013 -0.016 -0.004 0.013 -0.017 -0.011 -0.052 -0.0014 -0.045 0.0061 -0.023 -0.04- 0.4 -0.011 0.17 -0.018 0.28 0.12 0.22 0.17 0.31 -0.140.25 -0.0040.17 Response -0.25 0.34 0.29 0.082 -0.019 0.23 0.34 -0.052 0.17 0.015 -0.0026 0.71 Annual Inc -Year - -0.0049 0.016 -0.012 -0.012 -0.0048 -0.0037 -0.0014 -0.14 0.015 -0.0056 0.026 -0.15- 0.2 0.35 0.025 0.25 -0.045 0.25 0.8 -0.1 -0.0027 0.17 0.75 spending -Customer ID - -0.0082 -0.0056 -0.0027 -0.0042 -0.00012 0.0061 -0.004 -0.0026 -0.0037 -0.0036 0.00028 -0.012 -0.0038 - 0.0 0.015 0.023 0.0098 -0.052 0.069 0.0013 -0.023 -0.018 0.25 0.026 0.17 -0.0042 0.23 0.17 -0.0037 0.23 TotalNumOfPurchases -0.21 0.067 0.0061 0.2 0.22 -0.04 0.71 -0.150.75 0.26 Complain