Marketing Analysis - Case Study

Problem Statement

Our marketing department needs some help in focusing on the most important market segment. Instead of marketing to everyone, they need our help in identifying who our most profitable customers are. Are they married or unmarried, working or retired, premium or budget buyers etc... This will help them position things better.

Also, they need help in identifying the bestselling products.

So, given the transaction data, help us identify the top 3 most profitable products and characteristics of our most loyal customers. Also include your hypothesis of why you think the loyal customers like

Introduction

Problems: Marketing Team needs help in focusing on the most important market segment.

Required Information about

1. Our most profitable customers. (characteristics of our most loyal customers)

    a. Are they married or unmarried

    b. Working or Retired

    c. Premium or Budget

2. Bestselling Products (Top 3 most profitable products)

→ By using mathematical operation we can get our desired outcome.

About Problem

Target Audience

→ By solving this problem, the marketing team will gain valuable insights about our target audience. This will help in reducing marketing costs by avoiding non-buyers and enabling better deal offerings based on customer characteristics, ultimately leading to increased sales.

Best Seller

→ Identifying the best-selling products will allow the team to efficiently manage inventory. Prioritizing these products, optimizing their pricing, and offering deals will

ensure better stock management which will increase the profits.

Evaluation

Loyal Customer - Ideology

In Transaction_data.csv file, we have following elements
→ Customer ID, Date of Purchase, Product Number, Product Name, Product Quantity, Total Sales on that particular date

Which we will be use to identify our Loyal Customers and Products is most demand.

Criteria: To identify who is our Loyal Customer

First we will create a list of Customers who are Most Frequently shopping from us and The ones who are spending the most on the platform.

We will define 2 values `top_f and top_s` then we will use them to create a dataset called loyal Customer

- Customer with transactions (count) greater than `top_f`
- Customer with Sum of total sales greater than `top_s`

After we got the list of Top 10% Customers

We can get customer details of top x number of customers from above list.

Solution

1. For entire solution run `main.py`
2. To get Top 3 Best seller products run `bestSellers.py`
3. To get Characteristics of our Loyal Customer run `loyal_Customers.py`
4. `operations.py` - to access the dataset and merge them
5. `check.py` - to make sure pandas is working properly

Conclusion

As a Result we will get `best_seller.csv` and `top_x_loyal_customers.csv` file. With list of best seller product and Characteristics of our loyal customer.

Output

Top 3 Most Profitable Products are:

PROD_NAME
Dorito Corn Chp   Supreme 380g   40352.0
Smiths Crnkle Chip Orgnl Big Bag 380g   36367.6
Smiths Crinkle Chips Salt & Vinegar 330g   34804.2
Name: TOT_SALES, dtype: float64

Top 3 Most Profitable Products list saved to 'best_seller.csv'

Minimum number of transactions to be in top 10% = 7.0
Minimum total spending a customer must have to be in top 10% = 55.8

Enter number for top most loyal customers : 20

Top 20 loyal customer insights saved to 'top_20_loyal_customers.csv'
      LYLTY_CARD_NBR   LIFESTAGE ... TRANSACTION_COUNT TOTAL_SPENT
5308   162039   OLDER FAMILIES ...   18   126.8
5640   172032 YOUNG SINGLES/COUPLES ...   18   120.1
7700   230078   OLDER FAMILIES ...   17   138.6
3972   116181   YOUNG FAMILIES ...   17   117.6
306   13138   YOUNG FAMILIES ...   17   109.0

[5 rows x 5 columns]

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