



Customer Segmentation

Practice Case – Machine Learning

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Github Link : https://github.com/dhea1323/IYKRA-DheaFajriatiAnas_PracticeCaseML.git



OVERVIEW

This dataset contains transaction data in a supermarket. You as a data scientist at the retail company are expected to be able to process the data that has been collected so that it becomes valuable insight. Please answer the question below and explore your creativity.



DATA PRE-PROCESSING



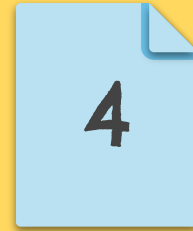
Drop null values



Remove minus and 0
values in 'Jumlah'
Column



Change data type

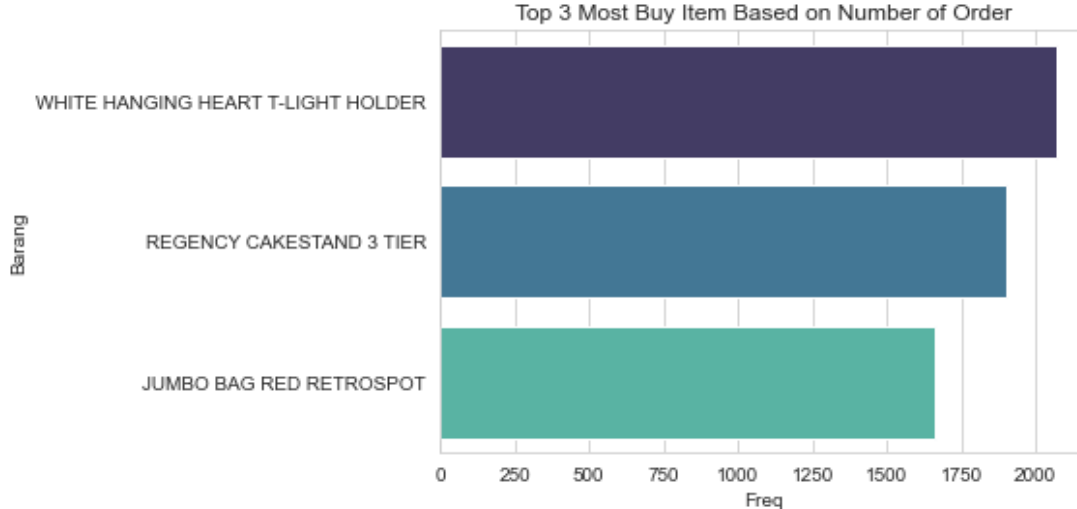


Check Outliers



PRODUCTS WITH BEST SALES

How about number of order?



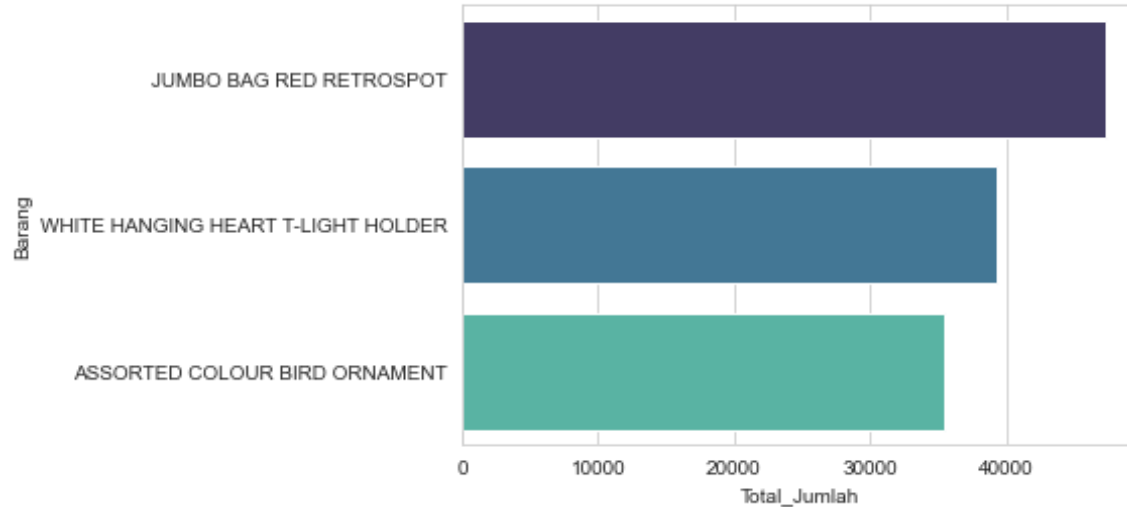
White Hanging Heart T-Light Holder was the item with the most transactions or number of order, followed by **Regency Cakestand 3 Tier**, and **Jumbo Bag Red Retrospot**



PRODUCTS WITH BEST SALES

How about total sales?

Top 3 Most Buy Item Based on Total Sales

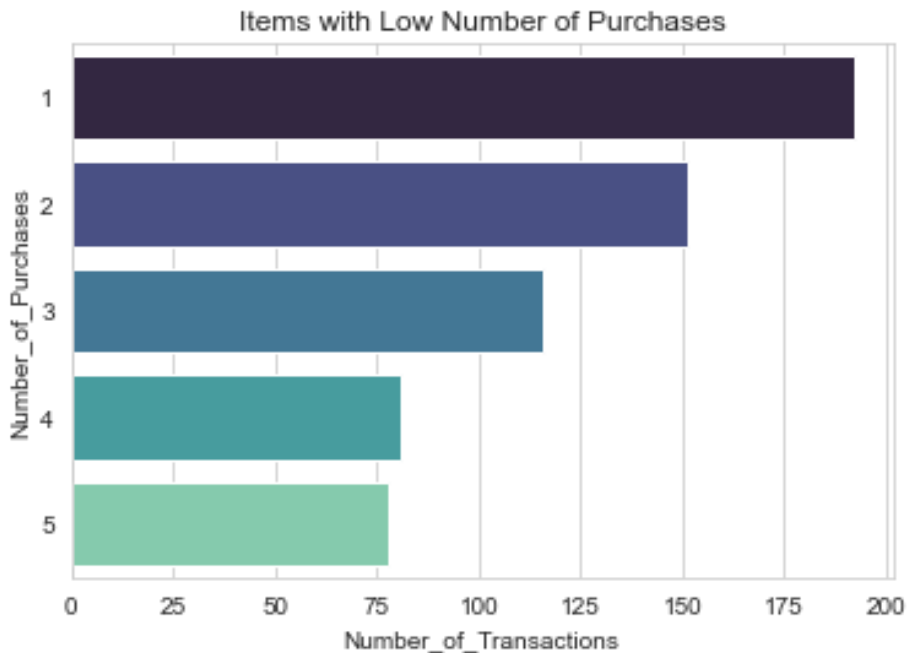


Jumbo Bag Red Retrospot was the item with the higher total sales, followed by **White Hanging Heart T-Light Holder**, and **Assorted Colour Bird Ornament**.



PRODUCTS WITH BAD SALES

Are there any items we should ignore?



There are items that we should ignore because the number of purchases for a year is very low. **In fact, there are 192 items that occur 1 time in a year.**



SALES STRATEGIES



SALES STRATEGY

1. Focus on the Right Niches

A good place to start is by looking at your current client base. Supermarket need to focus on the right market niches, that was UK, German, France, EIRE, and Spain.

2. Find out what kind of goods are in demand

By knowing what types of goods the customer likes, it is expected to provide them.

3. Reduce Unwanted Products

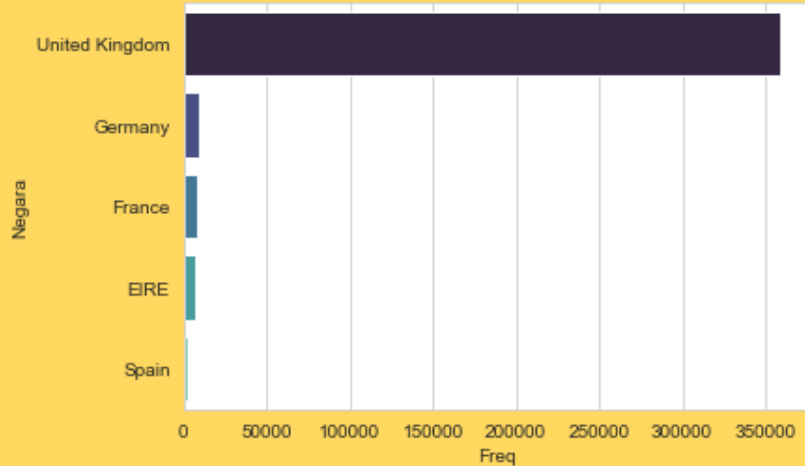
By doing reduce unwanted products, it is expected to reduce the costs incurred for the production process, and promotion.

2. Pricing Strategies

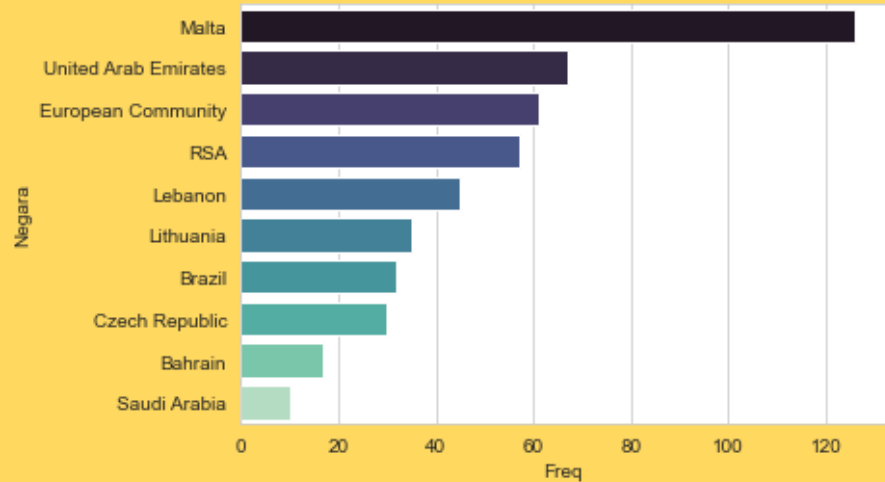
Types of pricing strategies include discounts, promotions, membership special pricing and bundle pricing. It might attract new customers

SALES STRATEGY

Top 5 Countries with The Highest Export Number of Transaction



10 countries with The Lowest Export Transaction Frequency



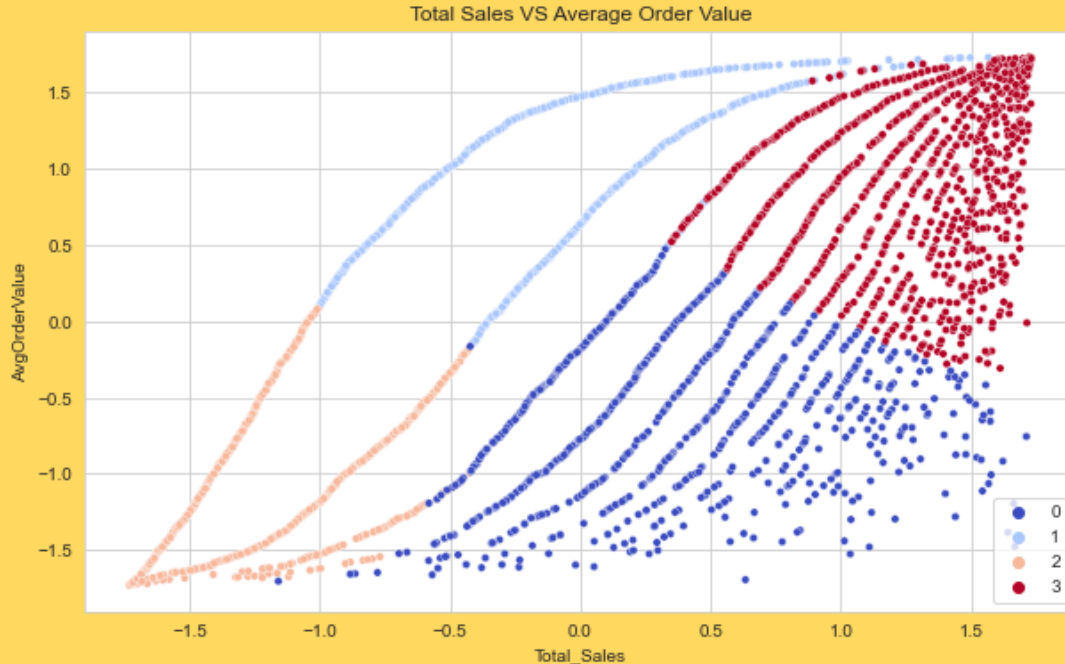


CUSTOMER SEGMENTATION

CUSTOMERS BEHAVIOUR

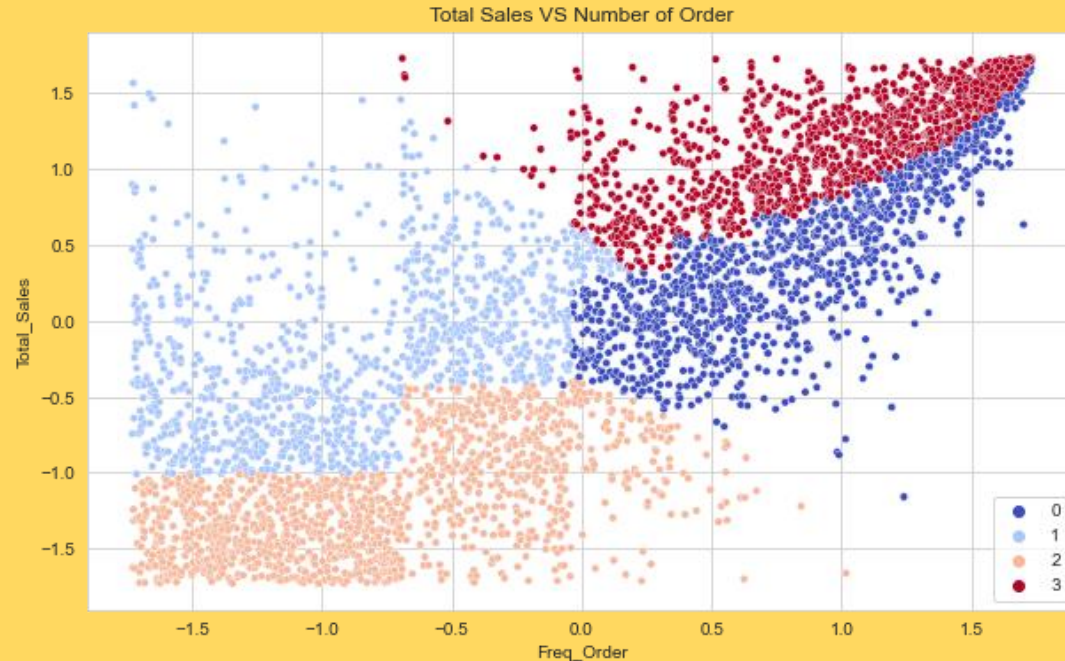


- The customers in cluster **number 2** have **low total sales** and **low average order value**, meaning they are **low value customers**.
- However, the customers in cluster **number 3** have **high total sales** and **high average order value**, indicating they are the **high value customers**.



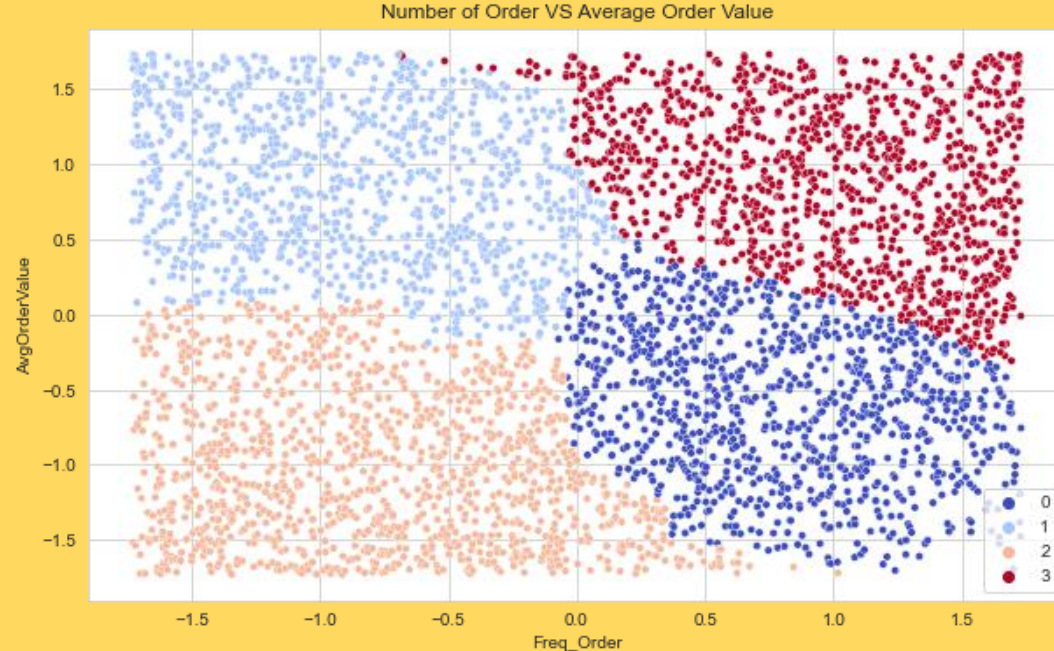
CUSTOMERS BEHAVIOUR

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CUSTOMERS BEHAVIOUR

- The figure shows number of order vs average order value. Once again, the customers in cluster **number 2** are the **low value customers**, and customers in cluster number **3** are the **high value customers**.





CLUSTER

0

High number of
order, but low
spender

1

Low number of
order, but high
spender

2

**Low number of
order and low
spender**

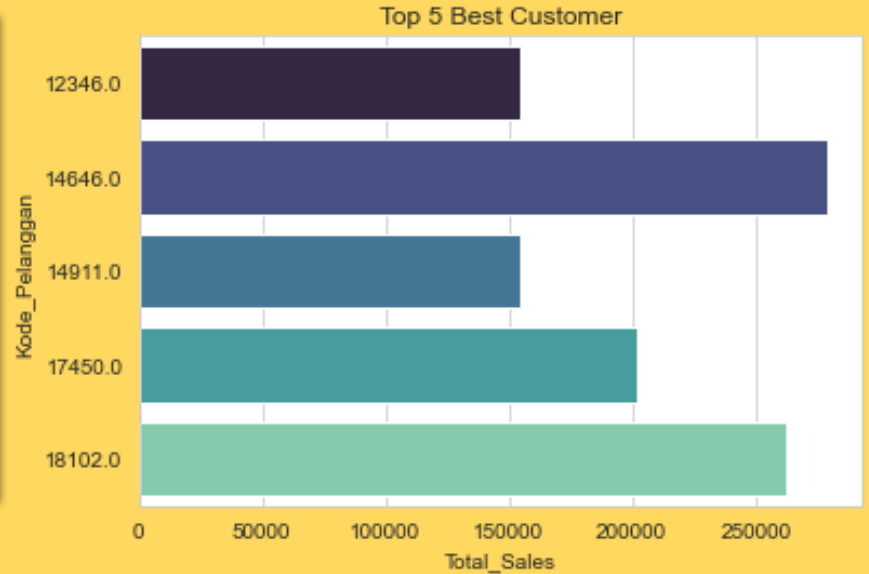
3

**High number of
order and high
spender**

Low value customer is the most common type of customer, which means the company must create a new strategy to increase revenue so as to generate a lot of high value customers.



The best customer has spent more than 150000.





Thank You

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