**W5H Report :**

We are team 8 and our topic is Home Depot. The three blogs we reviewed are

1. Dynamic Pricing/ Algorithmic pricing
2. Clustering
3. Data Analysis tools

W5H:

W5H are who, what, why, when, where and How. The basic idea is to specify theW5H for the analysis we have completed on out Home Depot data.

1. WHO:

WHO are the primary users of the above analysis?

* The dynamic pricing model basically is built to compare prices with the competitors and change our price accordingly keeping the cost price and profit in mind. This analysis is going to help “Decision makers” (Marketing team, Finance team, promotion team etc) to take effective marketing decisions based on the price we have optimized.

For example, If we are trying to get optimized price on a XYZ product and our dynamic pricing model gives us a price which is way less than our actual price, considering the ideal situation of implementing the price, the pricing team can focus on getting a forecasted price on the product(Tableau dashboards) and the marketing team can effectively focus on ways of promoting the product.

1. WHAT:

WHAT is the idea behind the analysis?

* The clustering model is based on the idea that customer face some basic problems related to bathing section. For ex, Improper installation, bathtub problem etc. All these problems are grouped into clusters (3 clusters) which will give us a high-level customer grouping on the problems based. Which will eventually help us in giving a better customer service. To be precise, we can give more importance to the customers who fall in large clusters.

1. WHY:

WHY are we implementing these models?

* The pricing model is introduced to 1. Attract new customers

2. Increase the revenue

3. Keep the new product in the market

4. Keep a track on prices from competitors

The clustering model is introduced to 1. Get customer behavior analysis

2. Priority customer analysis

3. Improving customer services

4. Getting to know problems faced

1. WHEN:

WHEN are we going to use this analysis?

* We are going to use both the analysis when the sale is being constant or low. If the sale is getting low or being constant it states that the profit is low. There are several ways to increase the profit. For example, attracting more customers, giving promotions, reducing the ideal inventory cost keeping the cost price in mind etc. One of the strong methods is lowering the prices keeping the profit high. Which we are implementing. Clustering is also helping us to retain the old customers by giving more importance to the primary customers.

1. WHERE:

WHERE are we implementing the models?

* We are implementing this model after the product is being introduced in the market and being tracked for a certain time. Which will give us enough data to analyze the customer behavior and analyze the problems and increasing the profit along with it. Customer clustering can be done at a stage where the customer service department would face enough number of complaints about the product which will give us enough data to put clustering algorithm and get to the bottom of the problem and giving better service to customers.

1. HOW:

HOW are we implementing?

* We have scraped the data from a website to compare Mattress’s prices from our competitors and further reduce our prices using Python.
* We have uploaded our datasets to AWS RedShift database and further connected it with Tableau to visualize and analyze the data.
* We have used K-Means Clustering algorithm in Python for Customer Analytics.

**Dashboard Links: Tableau Public**

<https://public.tableau.com/profile/gauravi.vikas.chaudhari#!/vizhome/DMA_Assignment2/Dashboard1>

**Jupyter File Links: Google Colab**

1. <https://colab.research.google.com/drive/1JrUU_L9KVJt42fM3JJU4lrHdnEW5jsdu>
2. <https://colab.research.google.com/drive/1_sRs1f0tGRjCVOeJBq91mWLpExsukUoo>

**Claat Documentation Link:**

<https://docs.google.com/document/d/1IZqp-e5AO6NUILZP71Ngwj6SQfoNN9c_z5520q3Hbj8/edit?usp=sharing>