Creator Name: Harish Chandra   Email: hari08021998@gmail.com

Customer Analysis using Tableau

An end to end project in Tableau

Table of content

1. Introduction

I have been given a data set from an online store that includes all necessary order information as well as the information of the customer who placed the order for the time period of January to December 2021. I have been given a few straightforward tasks to analyse this data using Tableau software and to provide my manager with an interactive dashboard, as he has a meeting with the sales and marketing team next week where he will discuss the sales of 2021. He just wants to present this dashboard and the information on the customer who placed the order and he simply wants to discuss all of the components to be included in this dashboard so that he and the sales and marketing teams may come up with effective plans for the upcoming year.

2. Problem Statement

The store manager wants to know about his customers and products so that he can identify the leading and lagging products, customers, categories, and regions. The sales and marketing teams will then discuss these findings so that they can concentrate on potential customers, products, or regions, as well as identify the best strategies for lagging corners.

3. About Data

Row = 286393   #Columns = 36

Columns Available:

order_id: (Int) Unique Id for each order placed

order_date: (Data) Data of order

status: (String) Status of order [processing, canceled, paid, cod received, complete, order_refunded]

item_id   sku: (String) No idea about it

qty_ordered: (Int) Quantity of order

Creator Name: Harish Chandra   Email: hari08021998@gmail.com

price: (Float) Price

value: (Float) Value = qty_ordered * price

discount_amount: (Float) Discount amount

total: (Float) Total = Value - Discount amount

category: (String) Product category [Men's Fashion, Mobiles & Tablets, Appliances, Computing, etc.]

payment_method: (String) Method of payment [cod, payaxis, easypay, etc.]

bi_st: (String) No idea about it [valid, Net, Gross, etc.]

cust_id: (Int) Unique customer Id

year: (Int) Year

month: (String) Month

ref_num: (Int) Reference Number

Name Prefix: (String)

First Name: (String)

Middle Initial: (String)

Last Name: (String)

Gender: (String) [M, F]

age: (int)

full_name: (String) Last Name, First Name

E Mail: (String)

Customer Since: (Date)

SSN: (String) No idea about it

Phone No.: Mobile Number

Place Name: (String)

County: (String)

City: (String)

State: (String)

Zip: (Int)

Region: (String) [North, South, East, and West]

User Name: (String)

Discount_Percent: (Float) Discount percentage between 0 - 100

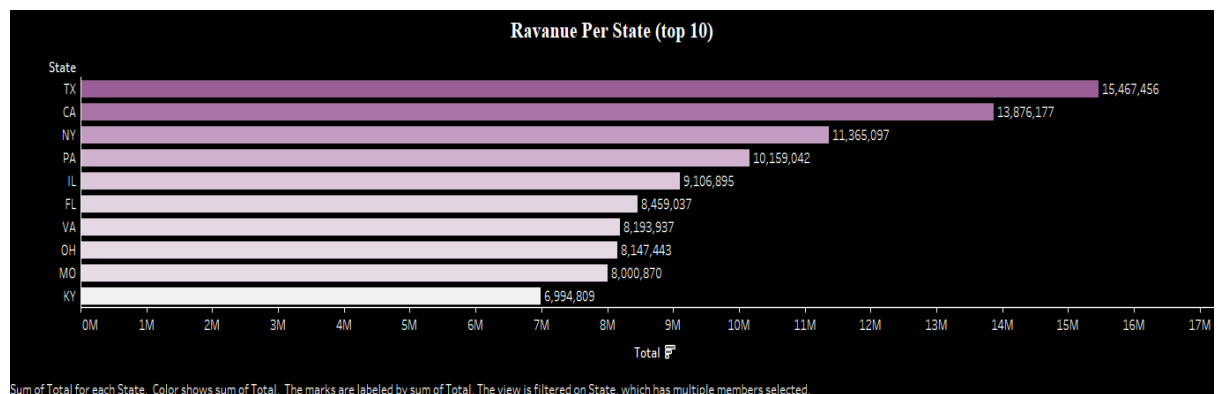**Creator Name: Harish Chandra   Email: hari08021998@gmail.com**

4. Deliverables

1. Top 10 states as per revenue
2. Revenue based on month of the year
3. Age wise spent
4. Revenue Based on age groups
5. Discount Percentage Vs Quantity Correlations
6. Revenue per region
7. Revenue per category per Gender
8. Category wise number of order
9. Combined Dashboards

5. Analysis

It was quite simple to import the provided data into Tableau because it was in a csv file, however it was a laborious process to establish a connection with the data base in order to complete the deliverables. Following the data loading in Tableau, I began constructing sheets one at a time to deliver the following objectives and the results:

1. Top 10 states as per revenue

Ravanue Per State (top 10)

State		
TX		15,467,456
CA		13,876,177
NY		11,365,097
PA		10,159,042
IL		9,106,895
FL		8,459,037
VA		8,193,937
OH		8,147,443
MO		8,000,870
KY		6,994,809

Sum of Total for each State. Color shows sum of Total. The marks are labeled by sum of Total. The view is filtered on State, which has multiple members selected.

So, here are the top 10 states by revenue, listed in decreasing order

Ravanue Per State (top 10)

State									
CA	FL	IL	KY	MO	NY	OH	PA	TX	VA
13,876,177	8,459,037	9,106,895	6,994,809	8,000,870	11,365,097	8,147,443	10,159,042	15,467,456	8,193,937

Sum of Total broken down by State. The view is filtered on State, which has multiple members selected.

**Creator Name: Harish Chandra   Email: hari08021998@gmail.com**

2. Revenue based on month of the year

When I calculated monthly income, I discovered that the store made the most money in December 2021 comparison to other months of the year, as seen in the plot.
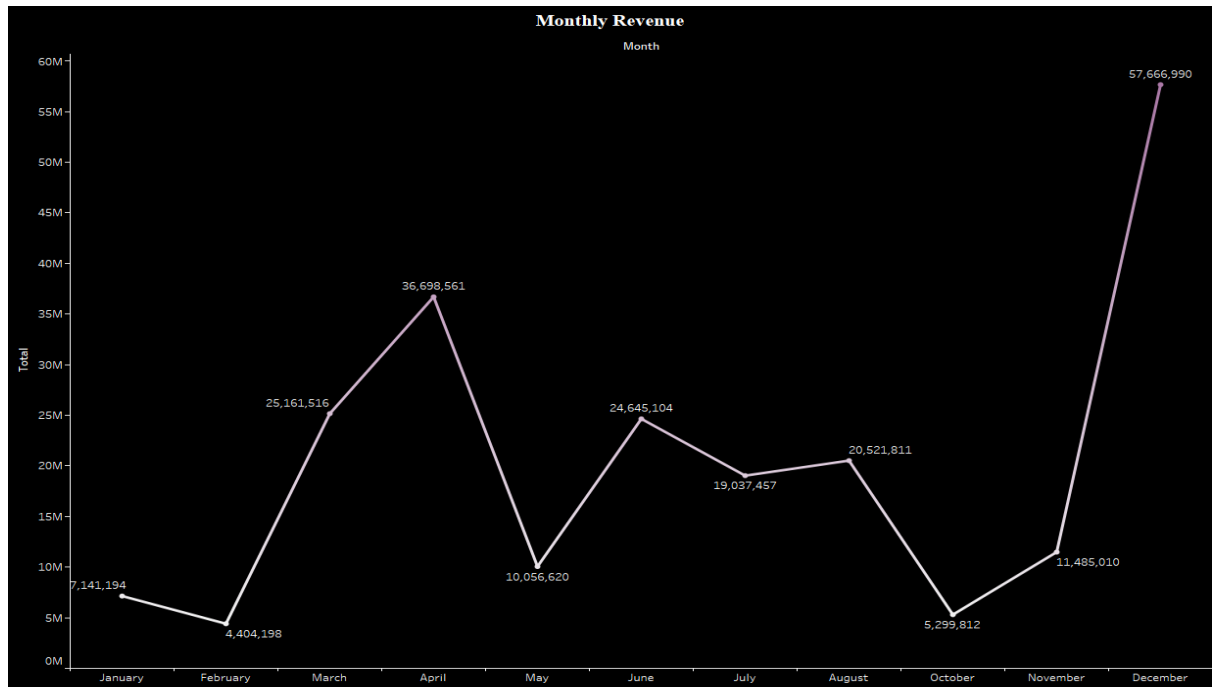

3. Age wise Spent

The calculation for age-based spending was quite simple, so it ought to come as no surprise that the customer who is 39 has the highest level of spending power because they are likely to earn more money and have a lot of buying to do for their parents, kids, and spouse.

Creator Name: Harish Chandra   Email: hari08021998@gmail.com
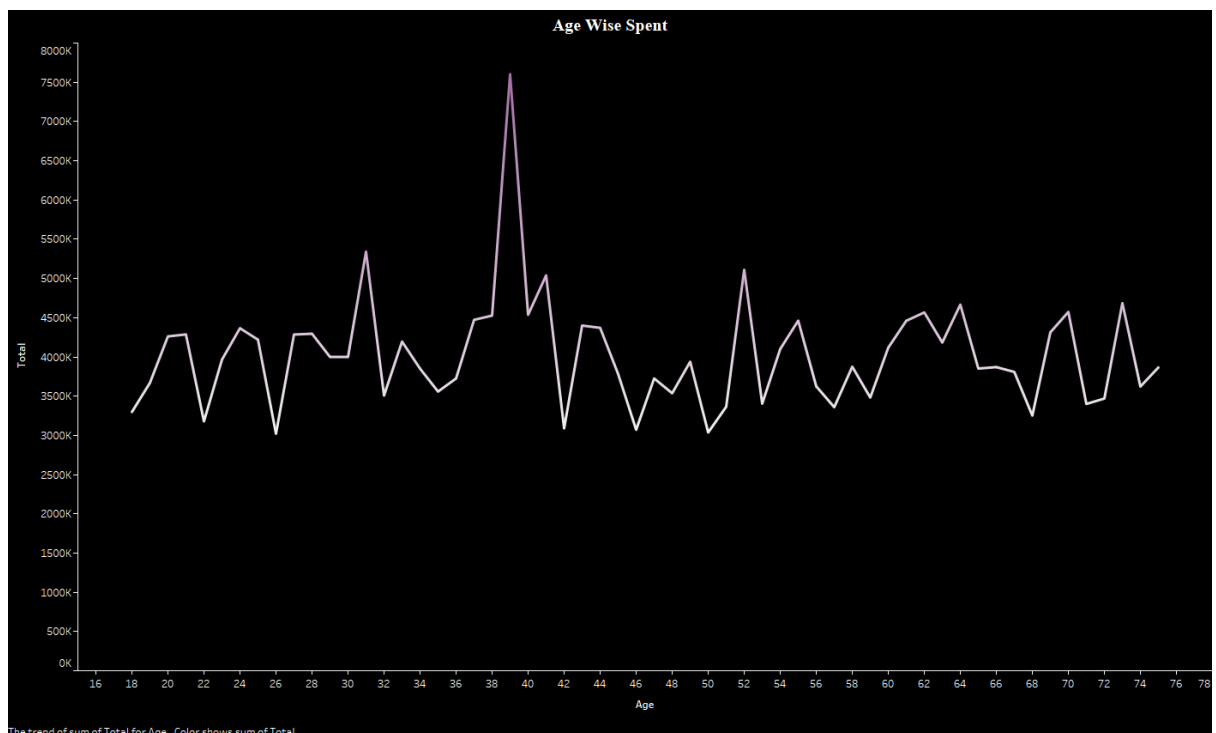
4. **Revenue Based on age groups**
   Once more, it is evident that people between the ages of 36 and 45 have the most
   financial resources available.
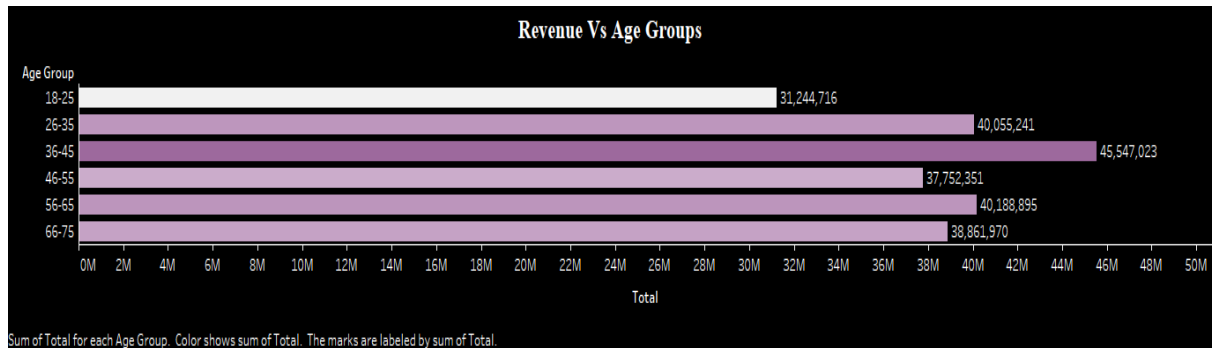
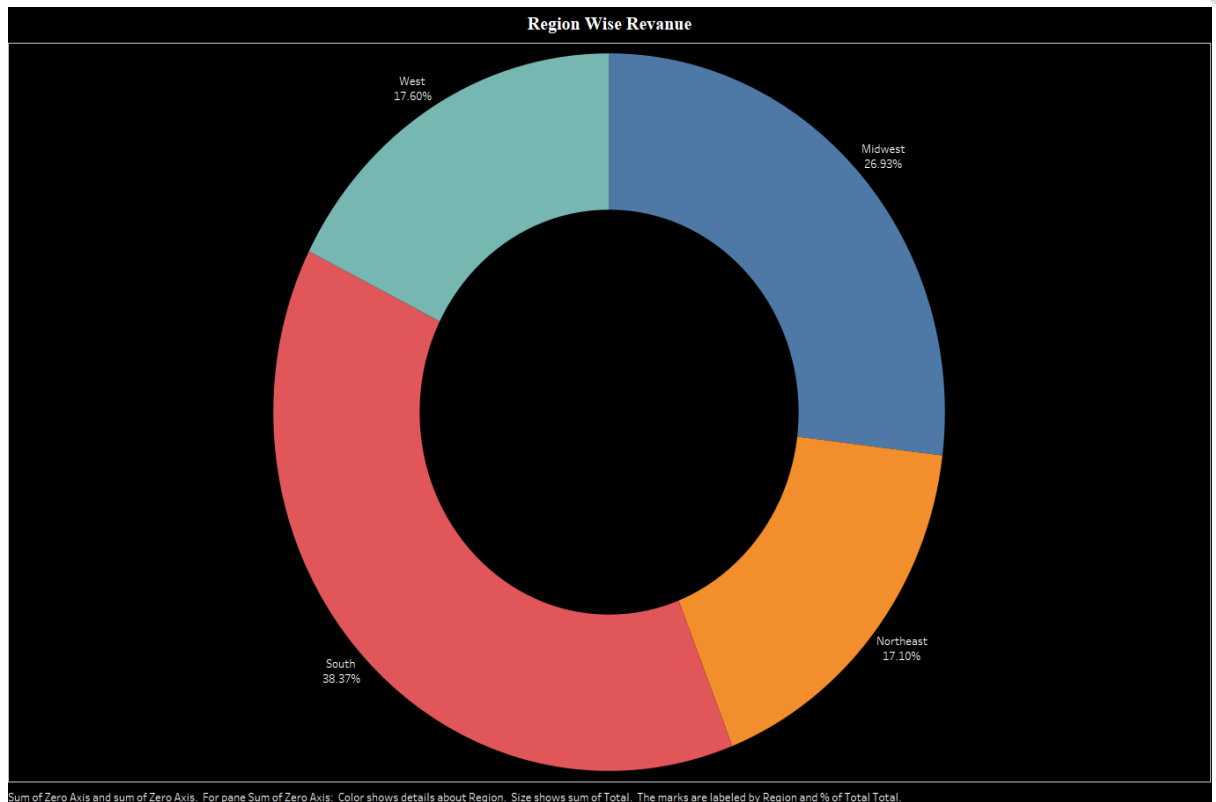5. **Discount Percentage Vs Quantity Correlations**
   It's interesting to note that the amount of orders has a good association with the discount
   percentage, which may be crucial for the sales and marketing teams to implement the
   optimal plan.
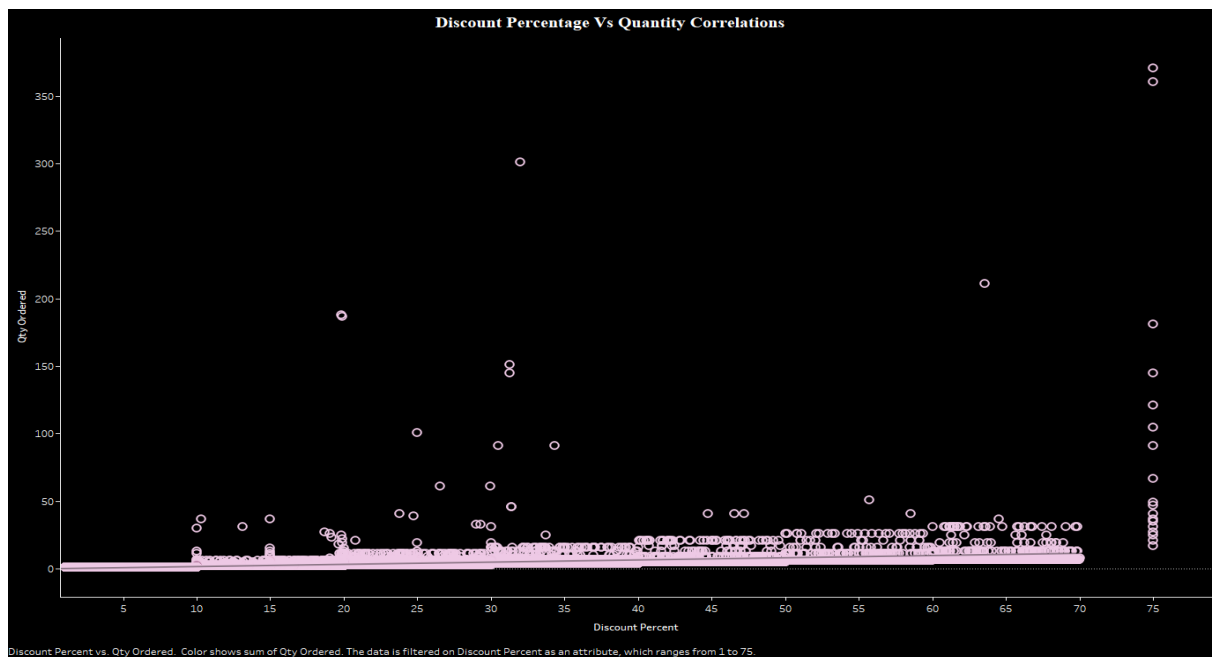
6. **Revenue per region**
   Region affects many aspects of a business, thus it's crucial for companies to monitor
   their most promising regions. In this example, I discover the Southern region as the
   most promising region, accounting for 38.37% of total income.

Creator Name: Harish Chandra   Email: hari08021998@gmail.com

Region Wise Revanue

Sum of Zero Axis and sum of Zero Axis. For pane Sum of Zero Axis: Color shows details about Region. Size shows sum of Total. The marks are labeled by Region and % of Total Total.

7. Revenue per category per Gender

Here is a short breakdown of revenue by gender and category, primarily the Mobiles and Tablets category reflected the male or female segments that generate the majority of the money.

Gender and category Wise Revanue
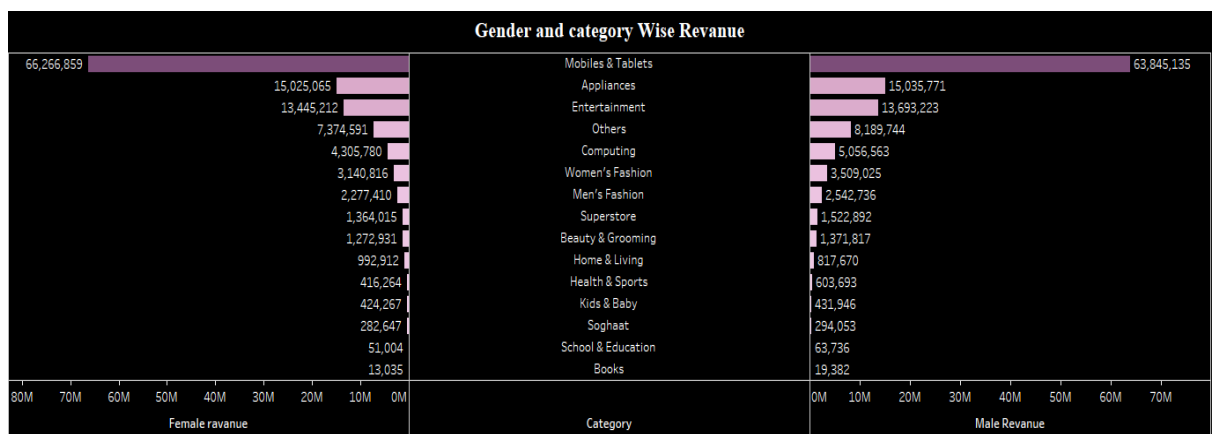
8. Category wise number of order

Let's now examine the categories that have the most ability to generate customers. This is an overall summary of those categories. Men's fashion is the third most customer-attractive category, whereas entertainment is the third most revenue-generating area (mentioned point 7 of analysis).

Creator Name: Harish Chandra   Email: hari08021998@gmail.com
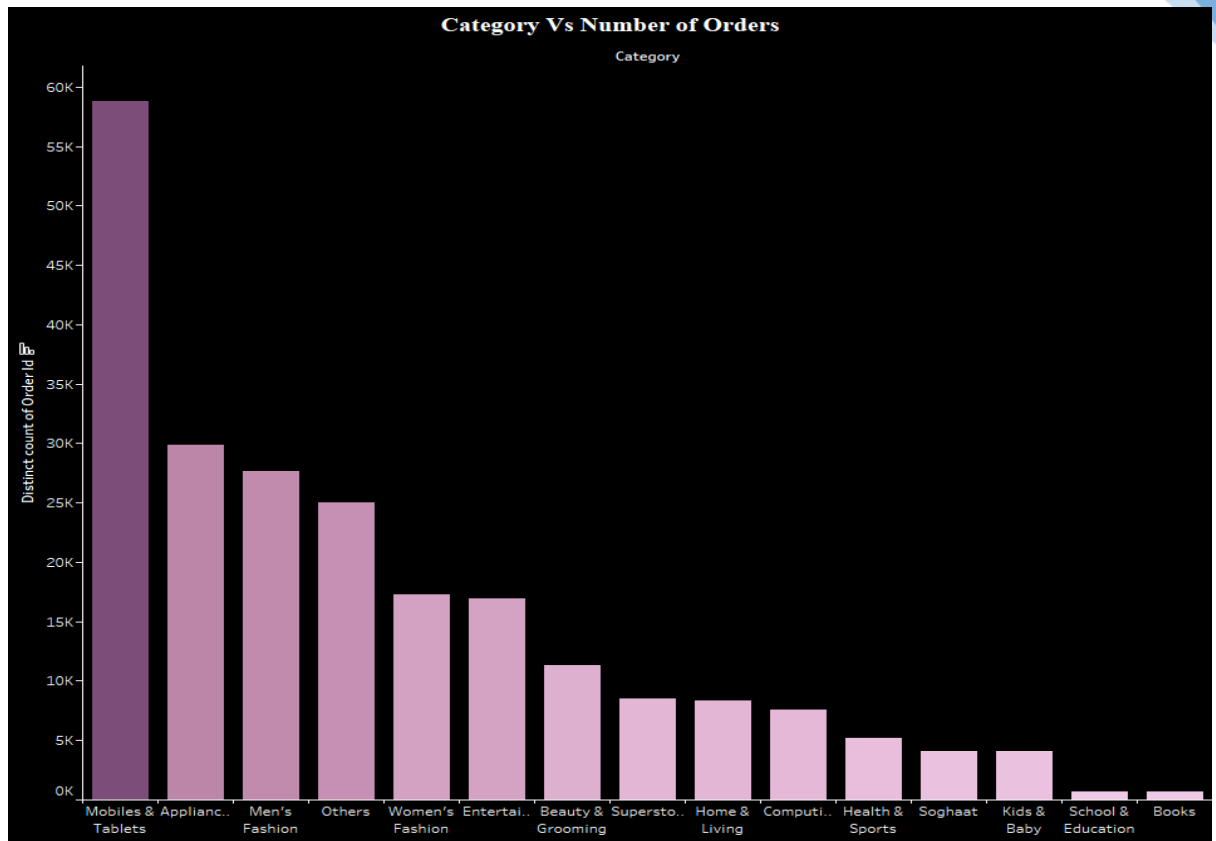
Finally, I finished every task that was assigned to me, and now I will develop a dashboard and send it together with this document to my manager. After he looks over the dashboard, we will briefly discuss it to clarify all the parameters and conclusions.

Creator Name: Harish Chandra   Email: hari08021998@gmail.com

6. Dashboards

Customer Analysis Dashboard-1

Customer Analysis Dashboard-2