

Customer segmentation analysis

Maximizing the value of each customer to the business.

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Topics:

- Dashboards
- Data Analysis
- Business Intelligence
- Customer segmentation

Tools:

- Tableau

INTRODUCTION

This is an exercise about customer segmentation analysis. The data set is available in the internet, and it is about a store chain along the U.S.

A customer segmentation analysis will allow identifying discrete groups of customers with a high degree of accuracy based on demographic, behavioral and other indicators.

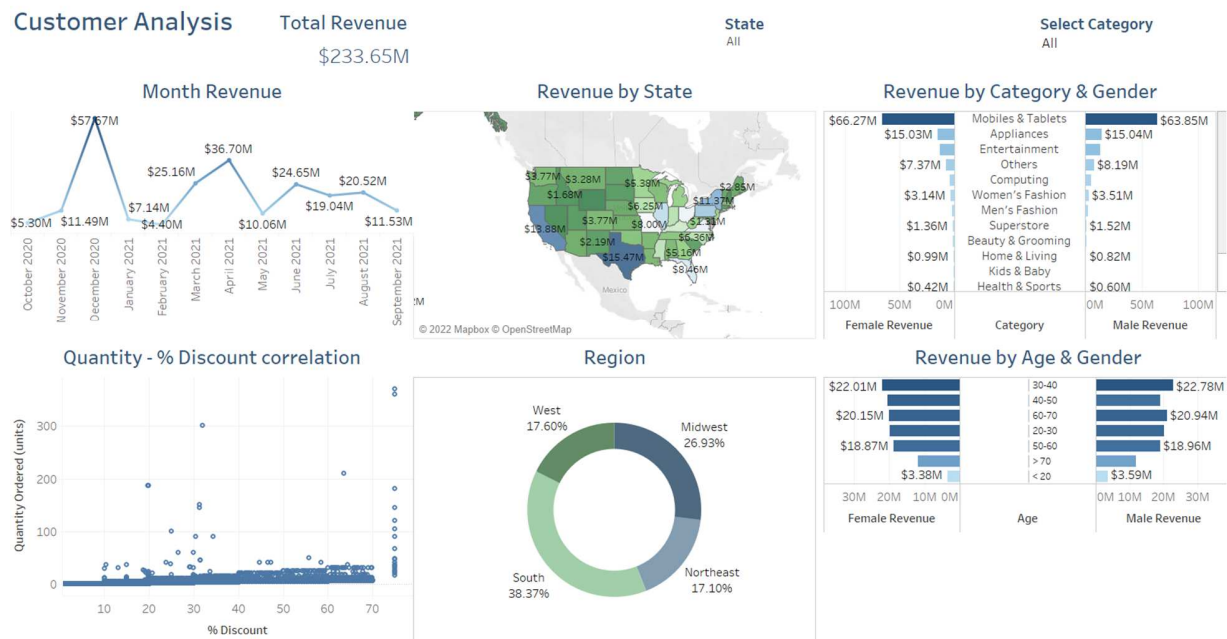
The main question to answer, since the company's goal is to maximize the value (revenue and profit) from clients, is:

- Is it possible to identify patterns and behaviors of different customer groups from data?

If this is possible an accurate customer segmentation allows the company to engage with each customer in the most effective way.

ANALYSIS AND DASHBOARD

In the Tableau workbook file, it can be found the following dashboard:



This dashboard tells a story about revenues throughout the analyzed period and along with the geographical locations of stores (each State), but includes as well, information about the category of products and age of customers both segmented by gender.

When the overall state is selected the charts show the amount of sales is variable throughout the period (chart 1). This could be explained by a seasonality effect but because the period is just one there is not enough information for a conclusion.

Both charts (butterfly charts): Revenue by category and gender and Revenue by age and gender show that on average there is a similar behavior in the category of purchased items and ages of customers whether for females or males.

But when states are analyzed individually more interesting patterns appear, for instance, South Dakota (SD):

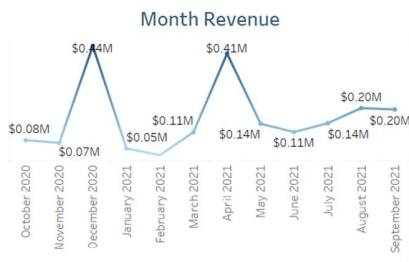
Customer Analysis

Total Revenue

\$1.96M

State
SD

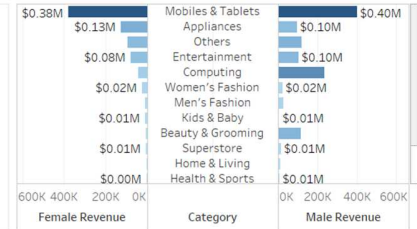
Select Category
All



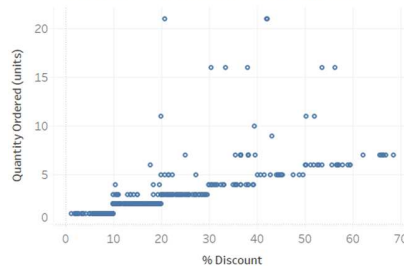
Revenue by State



Revenue by Category & Gender



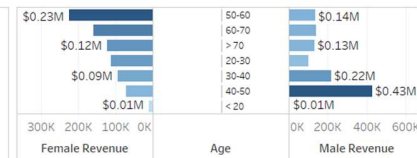
Quantity - % Discount correlation



Region



Revenue by Age & Gender



Charts show that items like computing and beauty & grooming have a bigger weight in men purchases than in women.

About ages, there are different patterns important to note: people between 50 and 60 years old represent the main purchasers among women, but the main purchasers among men are people between 40 and 50 years old.

Similar analysis can be made for each state, achieving useful insights for the marketing department.

CONCLUSIONS

When each State is analyzed individually different patterns appear, and diverse segments can be identified.

There are differences when the category of purchased items is compared among genders.

And there are differences on highest revenues when age and genders are considered.

RECOMMENDATION

The marketing department has enough information to relate customers in each segment to maximize the value of each customer to the business.