BEST PERFORMING STORES

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Introduction

A laundry pick-up service startup wants to build a vast network in smaller cities. They already have had a strong presence in 140 locations and recently opened stores in 10 new cities.

Additionally, the company has two separate sales regions.

Problem Statement

1. Which of the two sales region performs better in the following metrics:
   - Average Revenue per city
   - Average Marketing spend per city.
   - Average ROMI (Return on Market Investment) per city.
2. Which of the 10 new locations have the best potential for the company to invest more funds into marketing?

Descriptive Analysis

Upon review the following fields were found to be important and relevant to the problem statement:

1. StoreID: Uniquely identifies 150 stores including the 10 new stores.
2. City: City where the store is located.
3. State: State where the store is located.
4. Sales Region: Identifier if the store is in region 1/region 2.
5. New Expansion: Identifier to differentiate new and old stores.
6. Marketing Spend: How much money was invested in the marketing.
7. Revenue: Revenue generated.

We also have geographical and population data of the cities where the stores are located.

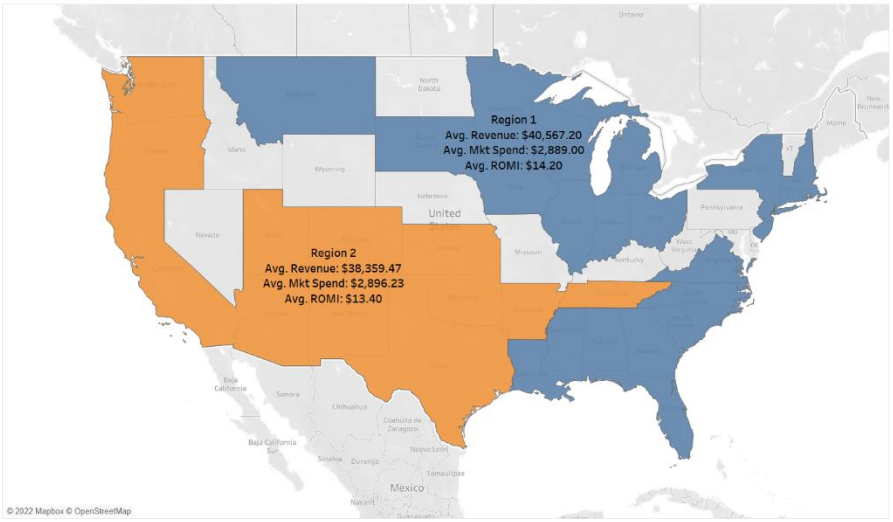
Findings

On the bases of regional analysis using the Map chart, we notice that sales region 1 has:

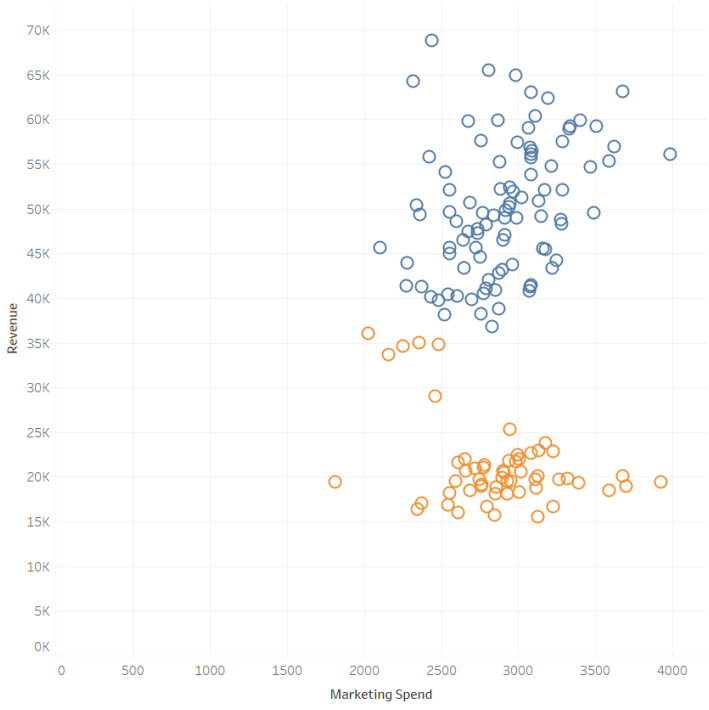
- Higher Average Revenue
- Lesser Market Spend
- Higher ROMI

Therefore, we can observe that sales region 1 is the better performing region in terms of the above parameters.

Region-wise data



Cluster Analysis



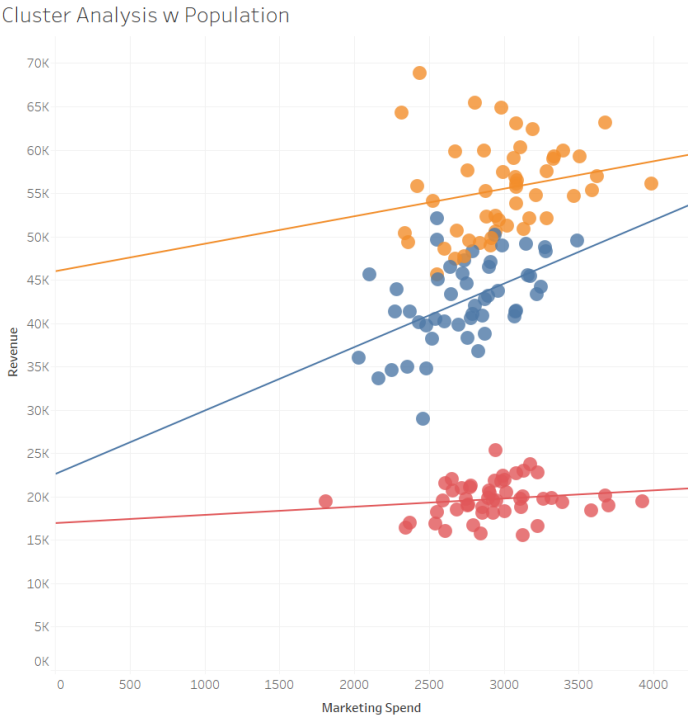
Further, when we plot revenue against market spend, two distinct clusters (k-mean clustering) formed. We have a group of cities performing well (in Blue) vs. a group of cities performing not so well (in Orange).

Performance was determined based on the understanding that even though market spend is higher for some stores, they don't perform as well in generating revenue (especially in the orange cluster).

Although, based on this observation, we cannot assume linearity between the two parameters.

On logical analysis, we can say that the revenue generated is directly proportional to the number of people serviced. That is, the amount of dirty clothes in a city that is given for laundry is directly proportional to the city's population.

Hence, we further consider the population in our clustering analysis. This makes it clear that the cities in red now have a lower population base and investing more into market spend does not increase revenue linearly.



Trend line analysis is used to clarify our understanding further and distinguish our top 2 clusters.

Trend line analysis shows the highest Revenue/market spend ratio for the blue cluster at 7.32, whereas red is at 0.94 and orange is 3.17

This analysis depicts that:

1. Red Cluster: Every $1 spent on marketing increases the Revenue by $0.94
2. Blue Cluster: Every $1 spent on marketing increases the Revenue by $7.32
3. Orange Cluster: Every $1 spent on marketing increases the Revenue by $3.17

This means that investing in marketing the stores in the red cluster will incur a loss of revenue, whereas investing in the stores in the other two clusters will increase the company's revenue.

Insights and Dashboard

Based on our analysis, the new stores from the blue clusters would generate the most revenue if we spent more on the marketing of these stores. The dashboard below visualizes the cities in blue and identifies their geographic location using the Map.