Hi Mr./Mrs. CEO,

After analyzing the data file consisting of historical operating data for all locations, I have found 3 factors which can maximize profit margin at each location. The average annual profit margin for a location, after imputing rental costs for owned locations, was 24.81%. The first factor to consider is the state that the store operates in. I found that Texas and California had the highest average profit margins with 27.86% and 25.90% respectively, while New Jersey and Georgia had the lowest average profit margins with 19.47% and 20.55% respectively. The second factor to consider is whether the location is owned or rented. Even after imputing rental costs for owned locations, I found that owned locations had an average profit margin of 28.17% while rented locations had an average profit margin of only 24.41%. The third factor that affects profit margin is the number of products for a specific location. By looking at the "Profit Margins vs Number of Products" scatter plot, we can see a positive correlation between the number of products and the profit margin at a given location. This correlation was quantified as having a .8 Pearson Coefficient which signifies a significant level of correlation. Therefore, to maximize profit margin, we can operate in states such as TX or CA, own the location rather than rent it, and maximize the number of products in the store.

Please let me know if there is anything I can further clarify or expand on.

Best,
Kento
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