MTA Turnstile Analysis

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Abstract:

MacFlurry, a fast food chain, wants to open stores around major subway stations in Manhattan. They want recommendations on where to open their stores depending on long- term sustainability in the sales which is least affected by re-occurrence of Covid

I worked with data provided by MTA for the year 2019,20,21 and analyzed hourly,daily and monthly trends to provide recommendations. I used matplotlib and excel to visualize and communicate my results.

Design:

- 1. Understanding the problem
- 2. Data collection
- 3. Cleaning and management of errorneous, duplicate and null data.
- 4. Analyzed top 10 stations by average daily entries and calculate year on year % Change
- 5. Analyzed hourly data to find trends in entry and exit on a daily basis

Data:

MTA Data for the year 2019, 2020 and 2021.

Tools:

- Panda and numpy for data manipulation
- Sql for basic analysis on the data
- Matplotlib for plotting

Conclusion:

I recommend Mac Flurry to open stores near Flushing Main or Jackson Height Roosevelt MTA stations due to following reasons:

- More resilient to restrictions imposed by Covid
- Highest return in MTA Traffic post lockdown
- Higher percentage of workers not WFH
- Low Real Estate Prices
- Post Covid: Average Daily Entries as high as 42 Port Authority Station