CASE STUDY: Hubway Bike-Share

**Introduction**:

A motorcycle parked on the side of a building

Description automatically generatedHubway bike-share originates from Boston and was launched in April 21st, 2011. The bike-share network appeared in three bound neighborhood cities such as Cambridge, Somerville and Brookline with more than 100 stations and 1,000 bikes and was also supported by Harvard University with 11 stations across Cambridge, Alston and Longwood areas. In 2019, the Hubway was re-launched under ‘Bluebikes’ brand after the company joint partner with Blue Cross Blue Shield of Massachusetts with 3,000 bikes.

In order to use the Hubway bike, a commuter must register as either annual or casual member. According to Bluebikes (2020), before the partnership, the Hubway prices remained constant. To be an annual member, so called ‘registered’, you must purchase annual ticket with $85 through online and receive a key to unlock a bike at any Hubway station. For the casual member, so called ‘casual’, you can purchase day-pass tickets from any station by credit card with $6 for 24-hour or $12 for 72-hour period after purchase. However, the service is free for any trip less than 30 minutes.

**Data Set**:

The Hubway case study consists of two data frames: trips and stations. There are 142 stations corresponding to 1164 bike-shares, and took place in four municipalities such as Boston, Cambridge, Somerville, and Brookline.

**Purpose**:

Goal of this case study is to identify two business insights and one recommendation to the Hubway company for improvement.

**Report Finding:**

Insight 1: Membership

After analyzing duration of the trips, we found Casual riders made 1.3 times longer than the Registered ones, because the Registered riders took the bikes more usual, as daily short commute with average 657 seconds. However, it represented only 30% of the total trips and there were around 22% only of them incurred additional fees. In addition, if dissected users by genders and age groups, male retired elders with age above 60 denoted 80% of the total riders.

Insight 2: Station Improvement

Among the total 142 stations with 1570001 trips, ‘South Station - 700 Atlantic Ave.’ (or #22) station was the most popular station to start trips with 56123 trip records, following by ‘Charles Circle - Charles St. at Cambridge St.’ and ‘Boston Public Library - 700 Boylston St.’ stations with 41994 and 35984 trips respectively; however, the ‘Charles Circle - Charles St. at Cambridge St.’ and ‘Boston Public Library - 700 Boylston St.’ stations were, Furthermore, the high seasons for the bike-share were in August, September, and October, and daily crowds time is from 4:30PM to 6:30PM with peak from 5PM to 5:30PM.

Recommendation:

Since the ‘South Station - 700 Atlantic Ave.’ was popular for start trips, but not