

Choosing the Best Locations for Opening a New Gym/Fitness Center

1. Introduction and Background

As a business investor, owning a gym can be very rewarding. A gym that offers the right products and services, properly targeting its members can be very profitable. And, for the fitness enthusiast they know they are providing something positive for a community and its people. There are various classes of gyms. They may be more geared toward younger athletes, body builders, power lifters, or simply someone just trying to stay in shape. There are many aspects that need to be considered when opening a new gym to ensure its success as a business. Certainly, as is true for most any business, there should be something that sets itself apart from other gyms. This can be the size of the space, equipment caliber and volume, or perhaps carrying very specialized nutritional supplements making it convenient for its member base. However, this study will focus on only one of these aspects that needs to be considered—location. How do we choose the best location?

2. Business Problem

When considering opening a new gym, there are various problems that must be considered. Some of these include size of target membership, how many square feet of space will be needed? What type of neighbors will be adjacent to the facility? Are there any local ordinances that will prohibit or limit any aspect of the business? But, by far one of the most important aspects to consider is competition. Owning a gym is very competitive, and unlike a restaurant where patrons can come and go regularly rotating through or trying new establishments, gym memberships are much longer term requiring a bigger commitment from its members. **As such it is important to choose a location with minimal local competition to ensure that its membership base can be quickly ramped up to a healthy, business sustaining level.** For many potential members, convenience is of utmost priority. Having a gym within close proximity, especially during these current times of COVID-19 where so many people are working from home meets this requirement. **The focus of this study will be on choosing the best locations in the southwest suburbs of Chicago based on minimal competition, for example, no or few gyms within proximity, as well having robust economy and good consumer base.**

3. Data

There are three sources of data that will be used for this study. The first is a list of the southwest suburbs of Chicago containing zip code, suburb name, and county. The source is Capital Impact at: http://www.ciclt.net/sn/clt/capitolimpact/gw_ziplist.aspx?zip=604. The data will be scraped from the three tables on this webpage.

The second set of data comes from Open Data Soft containing the latitude and longitude information for all zip codes in the United States. The master list is available at: <https://public.opendatasoft.com/explore/dataset/us-zip-code-latitude-and-longitude/table/?refine.state=IL>. However, the data is conveniently located on github where it will be read directly from <https://gist.github.com/erichurst/7882666>. Of course, only the SW suburb data will be needed, and the rest filtered out. These two data sets will be used to create a new,

combined dataset that will have for each Chicago southwest suburb a zip code, suburb name, county, longitude, and latitude.

The third set of data that will be used is Foursquare data to explore each suburb in order to cluster using k-means clustering and querying to find any existing gyms/fitness centers in each suburb.

Source is at: <https://foursquare.com/> but will use its API for various calls.