Fast Food Restaurant: An Example of Small and Medium Enterprise

Sushma

PROJECT PROFILE

Introduction: Business Problem

Objective

This document is developed with an aim to provide the entrepreneur with potential investment opportunity in setting up and operating a medium sized fast food restaurant offering a variety of food items to the general public.

Data

In this project we will try to find an optimal location for a restaurant. Specifically, this report will be targeted to stakeholders interested in opening an Fast Food Restaurant in Chicago.

We would also prefer locations as close to city , Advantages of each area will then be clearly expressed so that best possible final location can be chosen by stakeholders.

1 Data sources

Data can be found in Chicago Public Schools progress Report cards 2011-2012 , this data can be found in Kaggle datasets.

Used Four Square API to find the venues near to county in city.

Project brief

Fast Food is which is prepared and served quickly, Fast food Restaurant continues to grow rapidly in many countries, many are part of restaurant chains and standardized food stuffs are shipped to each restaurant from central locations. Besides there also simpler fast food outlets such as Stands where the customers sit down and have their food orders brought to them.

Interest

With today's hectic lifestyles, time-saving products are increasingly in demand the most obvious being the fast food. The Fast Food Restaurant Market is a growing industry in all America relying heavily on the changing lifestyle patterns, population growth of the target age group. Demand for convenience has driven expenditures where people want quick and convenient Meals. As a result, consumers rely on fast food. Knowing this, fast food providers are coming up with new ways to market their products that save time for consumers. Consumers want to combine meal-time with time engaged in other activities, such as shopping, work, or travel, therefore allocating less time for food, hence the growing need for fast food.

Focusing on Consumer Convenience

Fast Food outlets tend to focus on the "work while you eat" philosophy similar to the McDonald or the KFC outlets promoting the concept of "Shop While You Eat.

Increasing Market for Fast Food– The Population Boom

With this, the per capita income has increased to US$ 736 while the productive age group (15 to 64) years is said to take the major chunk of population (67% of total population) by 2020 .The growth rate in food consumption is also augmented by the rapid increase in the employment rate for males / female population aging between 20 to 29 years (fast food goers) hence the greater income contribution to the overall income generated is expected to be higher.

Choose a Location & Layout

It is important to find a location that has a continuous stream of traffic, convenient parking, and is in proximity to other businesses. It is necessary to revisit the business plan to make sure we are close to your target market.

Keeping these factors in view I have chosen Chicago city with busy streets near to schools where the demand is high for fast food restaurant.

Methodology

In this project we will direct our efforts on detecting areas of Chicago that have low restaurant density, particularly those with low number of Fast food restaurants. We will limit our analysis to area ~6km around city center.

In first step we have collected the required data: location and type (category) of every restaurant within 6km from Chicago center. We have also identified Fast food restaurants (according to Foursquare categorization).

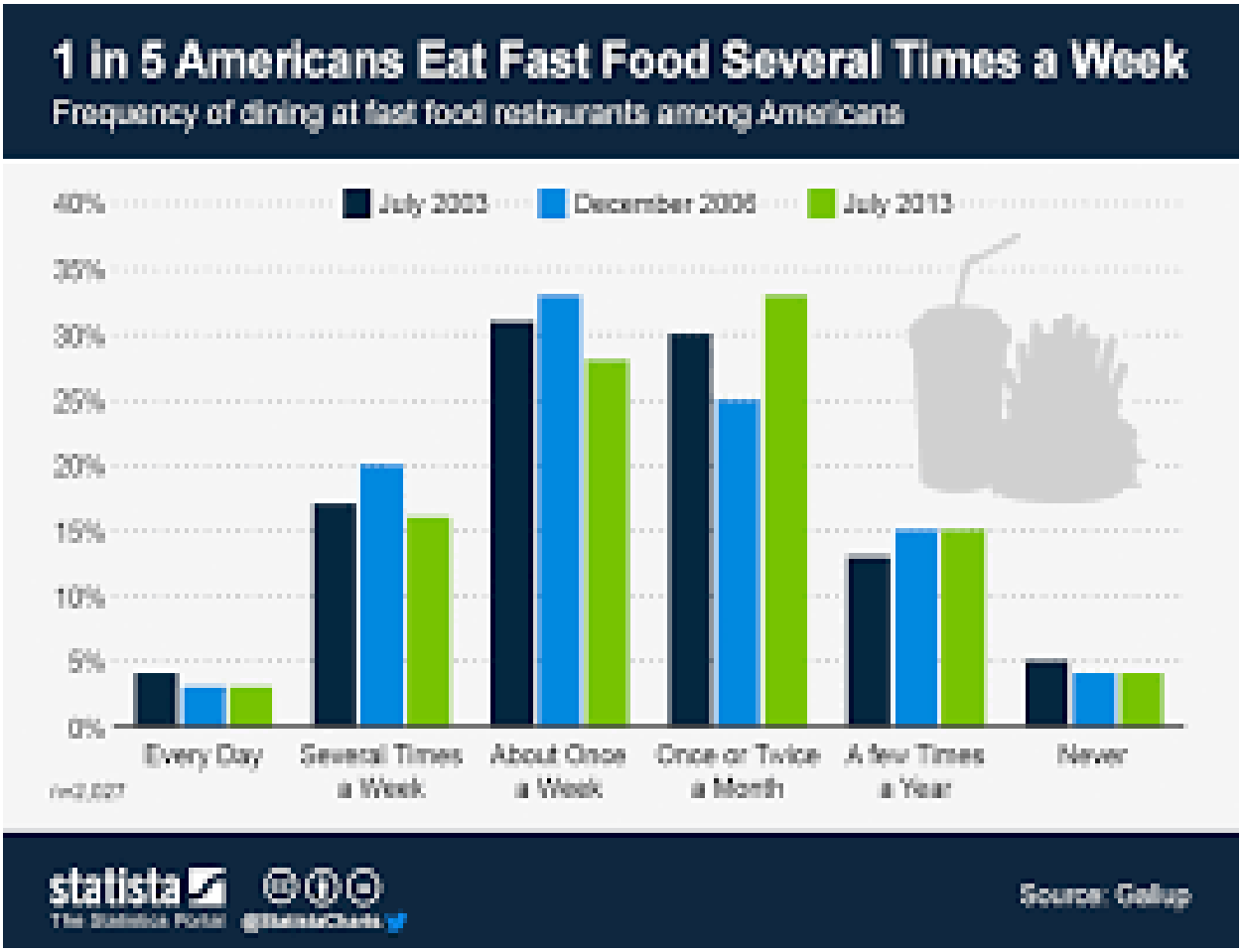
Second step in our analysis will be calculation and exploration of 'restaurant density' across different areas of Chicago- we will use maps to identify a few promising areas close to center with low number of restaurants in general (and no Fast food restaurants in vicinity) and focus our attention on those areas.

In third and final step we will focus on most promising areas and within those create clusters of locations that meet some basic requirements established in discussion with stakeholders: we will take into consideration locations with no more than two restaurants in radius of 250 meters, and we want locations without Fast food restaurants in radius of 400 meters. We will present map of all such locations but also create clusters (using k-means clustering) of those locations to identify general zones / neighborhoods / addresses which should be a starting point for final 'street level' exploration and search for optimal venue location by stakeholders.

Analysis

performed some basic explanatory data analysis and derive some additional info from our raw data. By counting the **number of restaurants in every area candidate**:

Did some analysis on people interest, serving style and Food Concept.



Results and Discussion

Our analysis shows that although there is a great number of restaurants in Chicago in our initial area of interest which was 12x12km around, there are pockets of low restaurant density fairly close to city center. Highest concentration of restaurants was detected north and west, so we focused our attention to areas south, south-east and east, and south-east corner of central borough. which offer a combination of popularity among tourists, closeness to city center, strong socio-economic dynamics *and* a number of pockets of low restaurant density. The streets 'Wolcott Ave', 'S Wells St', 'W North Ave', has zero fast food restaurants.

Conclusion

Purpose of this project was to identify Chicago areas close to center with low number of restaurants (particularly Fast food restaurants) in order to aid stakeholders in narrowing down the search for optimal location for a new Fast food restaurant. By calculating restaurant density distribution from Foursquare data we have first identified general boroughs that justify further analysis , and then generated extensive collection of locations which satisfy some basic requirements regarding existing nearby restaurants. Clustering of those locations was then performed in order to create major zones of interest (containing greatest number of potential locations) and addresses of those zone centers were created to be used as starting points for final exploration by stakeholders.

Final decision on optimal restaurant location will be made by stakeholders based on specific characteristics of neighborhoods and locations in every recommended zone, taking into consideration additional factors like attractiveness of each location (proximity to park or water), levels of noise / proximity to major roads, real estate availability, prices, social and economic dynamics of every neighborhood etc.