

# **The Battle of Neighborhoods:**

## **Exploring ‘The Big Durian’ for a Coffee Shop Business Opportunity**

Coursera Applied Data Science Capstone Project  
Week 4 Submission – Introduction and Data

Ginanjar Saputra  
13 February 2021

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## **1. Introduction**

### **1.1. Background Information**

Jakarta is the special capital region of Indonesia, an archipelago in Southeast Asia. It is located on the northwest coast of Java and is home to a population of 10.5 million. The greater Jakarta metropolitan area, which extends over 6,300 km<sup>2</sup>, has a staggering population of 35 million and is the second-largest urban agglomeration in the world<sup>1</sup>. A melting pot of many cultures, Jakarta is the center of Indonesia’s economic activities which has attracted people from across the archipelago to move to the city in search of opportunities and a potentially better standard of living.

Business opportunities abound in Jakarta, but the food-and-beverage (F&B) sector has long been an attractive target for investors. It has recorded the largest investment realization among secondary sectors in Indonesia over the last five years, totaling IDR 293 trillion<sup>2</sup>. According to a research by Toffin<sup>3</sup>, the coffee shop has been a booming F&B business in Indonesia, reflected on the significant rise in number of outlets

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<sup>1</sup> United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision, Online Edition.

<sup>2</sup> “Food Industry Can Weather Global Economic Shock: BKPM”. The Jakarta Post. 27 May 2020.

<sup>3</sup> “The Emerging Business of Coffee Shops in Indonesia”. Now! Jakarta. 5 January 2020.

and domestic coffee consumptions in the recent years<sup>4</sup>. The market value of coffee shops is also estimated to reach over IDR 4 trillion per year.

## 1.2. Problem Statement

With the aforementioned prospect, various stakeholders (entrepreneurs, investors) may be interested to explore coffee shop business opportunities in Jakarta. This data science project is thus carried out to help them answer the following question:

*“Which of the Jakarta regions are strategic for opening a coffee shop business?”*

Apart from business stakeholders, the project may also be of interest to fellow coffee enthusiasts.

## 2. Data

In order to explore potential answer to the problems, the following data are required:

1. **The names of administrative regions in Jakarta and their corresponding postal codes.** The regions include three levels of subdivision: city, district, subdistrict. The information was scraped from a directory on [indonesiapostcode.com](http://indonesiapostcode.com). The region names are useful to perform analysis across different sub-regions. The postal codes are needed to obtain coordinates of each subdistricts.
2. **Geographical coordinates** of Jakarta and its subdistricts, which will in turn be needed to utilize Foursquare API in the subsequent step. Coordinates are obtained using [Nominatim](#) geocoder from the [GeoPy](#) library.
3. Information about venues in Jakarta regions: the names, category, venue latitudes, venue longitudes. These are obtained using [Foursquare API](#). The subdistricts of Jakarta will be clustered based on their surrounding venues to find the best location candidates for opening a coffee shop.

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<sup>4</sup> United States Department of Agriculture. Indonesia Coffee Annual Report 2019.