

Vietnamese Food in Amsterdam

CAPSTONE PROJECT

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1.0 Business Problem

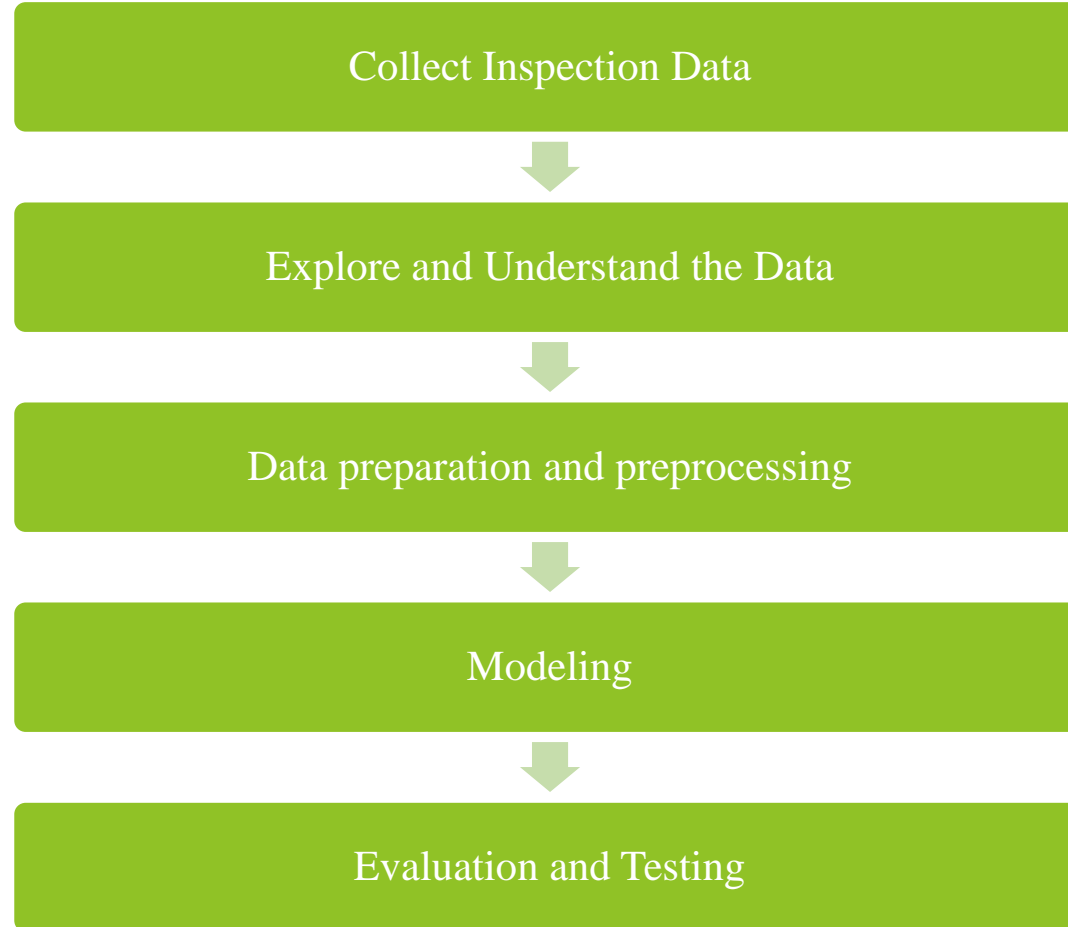
After living in Amsterdam for several years, my perception was that there are relatively few Vietnamese restaurants.

The questions I would like to answer are:

1. How many Vietnamese restaurants are in Amsterdam and where are they located; and
2. Where would be a good location to establish a flagship Vietnamese restaurant in Amsterdam

Disclaimer: Before making an investment decision based on this analysis, forecasts that include the impact of COVID-19 should be considered.

2.0 Methodology



3.0 Data Description

- ▶ The list of data sources in the table below are intended to help answer the two questions in this analysis.
- ▶ That is:
 1. How many Vietnamese restaurants are in Amsterdam and where are they located (source 1)
 2. Where would be a good location to establish a flagship Vietnamese restaurant in Amsterdam (sources 2)

#	Data Description	Purpose
1	Foursquare: Amsterdam restaurants by cuisine https://developer.foursquare.com/developer/	Assess the number and location of Vietnamese restaurants in Amsterdam
2	Gemeente Amsterdam: Data & Informatie https://data.amsterdam.nl/specials/dashboard/dashboard-kerncijfers/2b48132b-d877-40df-9c31-0bfc74f3ff54/ <ul style="list-style-type: none">• Population (Bevolking)• File name: bbga_latest_and_greatest	Official population statistics are maintained by the local municipality, known locally as “de Gemeente”. This information can also be sourced from the Central Bureau of Statistics (Centraal Bureau voor de Statistiek)

3.1 Foursquare

The foursquare app will be used to locate the existing Vietnamese restaurants in Amsterdam, within a radius of 3000m from the city center.

3.2 Gemeente Amsterdam

#	Data Description	Field Names	English translation
1	<p>Gemeente Amsterdam: Data & Informatie https://data.amsterdam.nl/specials/dashboard/dashboord-kerncijfers/2b48132b-d877-40df-9c31-0bfc74f3ff54/</p> <p>bbga_latest_and_greatest Original size of the data is circa 140MB. Reduction will need to occur prior to import /usage.</p>	<p>jaar gebiedcode15 gebiedcodetype gebiednaam variabele waarde</p>	<p>Year Area code Type of area Area Variable Value</p>

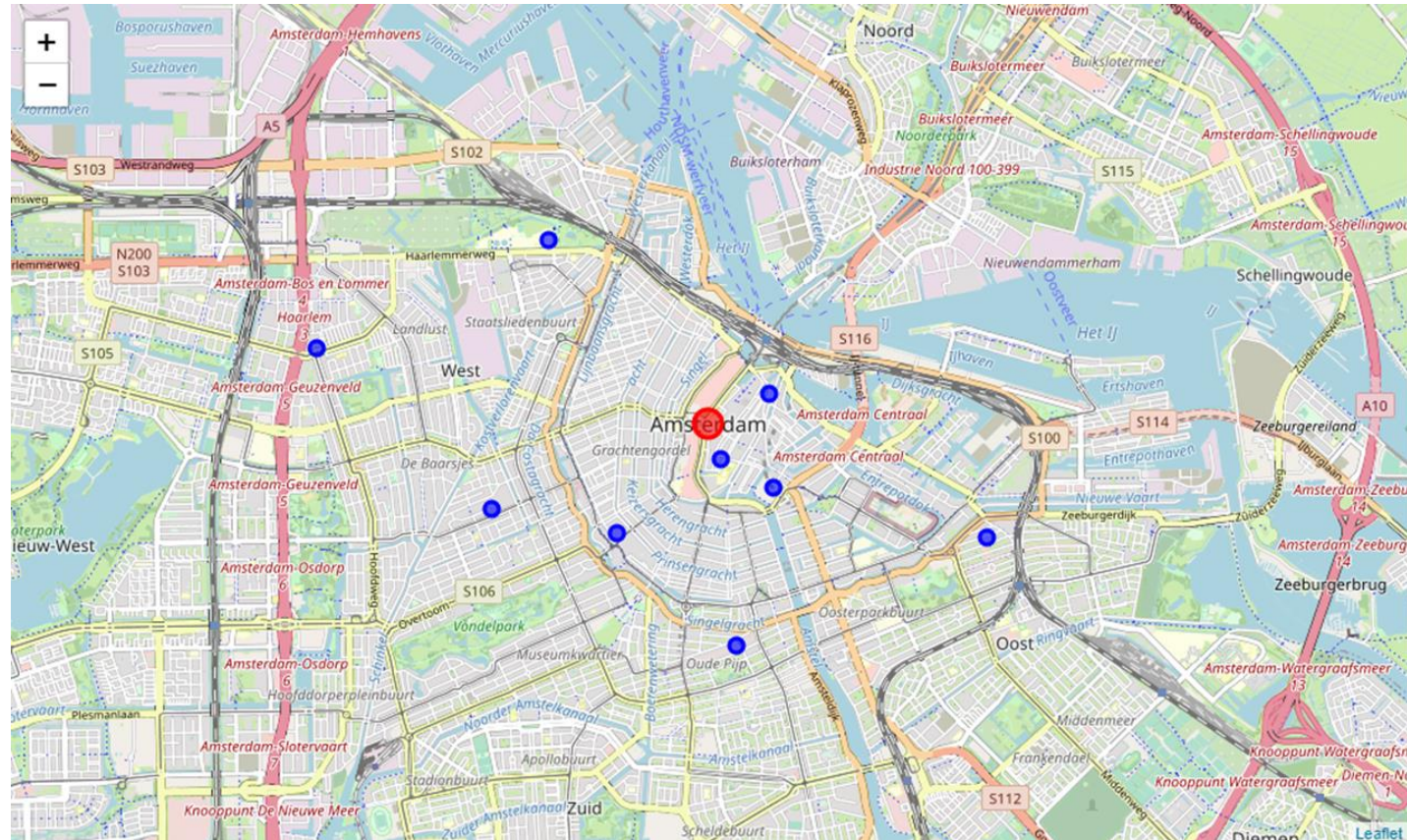
Due to the significant size of the source data file, the following parameters were removed:

- ▶ Jaar / Year : 2005 to 2015
- ▶ Gebiedcode15 | Area code: Buurten, Alternative buurten; and Rayons
- ▶ Variabele | Variable: various non relevant parameters

4.0 Foursquare: Where are the Vietnamese restaurants in Amsterdam located?

Utilizing the foursquare app and python tooling, I have identified the existing Vietnamese restaurants in Amsterdam.

In this call a 3000m radius was defined from the center of the city (red dot). This includes the main touristic and inner-city suburbs.



5.0 Identify Restaurant Demographic

Average household expenditure on food services Netherlands 2015. [S.Lock Nov 19, 2020]

- ▶ Conclusion: this study shows the average household expenditure on food services in the Netherlands in 2015, by age of provider. The age group that spent the most on food services in 2015, was the 45 to 55 years age category with an expenditure amounting to 1,800 euros per year.
- ▶ <https://www.statista.com/statistics/762382/average-household-expenditure-on-food-services-in-the-netherlands-by-age-of-provider/>

De Food-Track-Studie [University of Utrecht 2020]

- ▶ Conclusion: This study identified the largest demographic for eating out (i.e restaurants & café's) as 25-45 year old, non students
- ▶ <https://waareetjij.nu/het-onderzoek/>

**For the purposes of this analysis, that is where to establish a flagship Vietnamese restaurant, I aim to use the age group: 25 to 55 years.
This appears to be feasible given our source data.**

6.0 Modelling (week 2)



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Appendix

1. Data sources: Gemeente Amsterdam

Appendix 1: Gemeente Amsterdam | Year

#	Data	Data Name	Data Description
1.1	jaar [year]	jaar	Four digit numeric reference to the calendar year "2020"

Due to the significant size of the source data file, the years 2005 to 2015 were removed

Appendix 1: Gemeente Amsterdam | Geography

#	Data	Data Name	Data Description
1.2	gebiedcode15 [area code]	Stadsdelen	City Districts - 9 areas single alpha character "A"
		22 gebieden	Sub districts - 22 areas DX+2 numeric characters "DX01"
		Wijken	Neighbourhoods - 98 single alpha + 2 numeric characters "A01"
		Postcodes	Geographic grouping four digit numeric number "1076"
		Buurten Alternatieve buurten Rayons	Sub sections of wijken addition of single alpha character "A01a" Reclassification of Buurten 2 alpha + 2 numeric "AS01" 89 areas linked to 22 gebieden bb+numeric "bb1"

Due to the significant size of the source data file, the following variables were removed as they were too granular to be meaningful for this analysis

- ▶ Buurten;
- ▶ Alternative buurten; and
- ▶ Rayons

Appendix 1: Gemeente Amsterdam | Variables (1 of 2)

#	Data	Data Name	Data Description
1.3	variabele [variable]	BEVTOTAAL	Number of persons who are included in the population register of the municipality of Amsterdam on 1 January
		BEVMAN	Number of men on 1 January of the reference year
		BEVVROUW	Number of women on 1 January of the reference year
		BEVDICHT	Number of residents per square kilometer of land
		BEVANTIL, BEVTURK, BEVMAROK, BEVOVNW, BEVWEST, BEVAUTOCH	Number of Amsterdammers born [or whose parents were born) in: (a) the former Netherlands Antilles; (b) Turkey; (c) Morocco; (d) non western; (e) western; or (f) no migration information
		BEVNSTEDELING	Number of people with a Dutch or Western migration background (excluding Eastern Europe), aged 18 to 54, registered after their 18th birthday in Amsterdam.
		BEVOPLLAAG, BEVOPLMID, BEVOPLHOOG	Proportion (%) of low, middle and high educated residents of the population aged 15 to 74
		BEVX_Y	Persons aged “X” to “Y” who are registered in the municipality of Amsterdam on the reference date. For example BEV25_29 = number of persons aged between 25 and 29
		IINKQX_P	Percentage of households with disposable income in the X quintile based on the national distribution of incomes. Students and residents of institutes are not included (5 th Quintile is the highest earners)

Appendix 1: Gemeente Amsterdam | Variables (2 of 2)

Due to the significant size of the source data the following variables were removed as they are not anticipated to be relevant for the analysis:

- ▶ BEVBRIEF (letterbox address holders)
- ▶ BEVINST (Institutes)
- ▶ BEVVEST, BEVVERT, BEVVESTINT, BEVVERTINT, BEVGELUKINT, BEVMUTNL_P & BEVMUTTOT_P (additional details on people moving *within in the Netherlands*. This question asks did the resident change address from live inside Amsterdam or come from another city/area in the Netherlands)
- ▶ BEVPOTBBV (intention of the resident in terms of length of stay)
- ▶ BEVSTERF (number of deaths) & BEVGEB (number of births)
- ▶ Various household composition statistics (single, shared, family, family with children, other)