

Leveraging location and competitive datasets to evaluate business opportunities in Central London

Capstone Report for IBM Data Science Professional Certification

Written by Thomas Reimer

August 2020

1 Introduction

When planning to open a new business, it is increasingly difficult to identify candidate locations in urban locations, due to the saturation of markets. However, taking a data driven approach is increasingly common for a business to get the edge in this competitive landscape.

This report will explore the opportunities for opening a new cafe in a vibrant area within central London. In order to make this decision effectively, the analysis will factor in information about the competitive landscape and leverage various data science techniques to inform the final recommendations.

While this analysis will focus on the launching of a new cafe, a similar methodology could also be applied across a range of business opportunities, thus making this report relevant to all entrepreneurs looking to launch a consumer facing business in the city centre!

2 Data

As highlighted previously, the main focus of this analysis will be to identify candidate locations for a new cafe, by combining location and competition data - detailed below.

2.1 Sources

1. Location Data
 - a. To identify candidate locations, we will explore multiple approaches: either using the UK Postcode Locations or by defining our own grid of potential locations
2. Competitive Data
 - a. To provide insight on the competitive landscape, the **Foursquare API will be used, which provides detailed information about the existing venues in the city**

2.2 Data Preparation

As mentioned previously, the first investigation will compare the merits of an arbitrarily defined grid of potential locations, with those of the UK postcode areas.

Furthermore, when looking at the Foursquare data on different venues, it will be important to focus on those which are complementary and competitive, in order to inform the analysis. Therefore, when planning for the new cafe, the following definitions will be used:

- Complementary: bars, restaurants
- Competitive: cafes

Also, in order to find a vibrant location in the city centre, it will be important to factor in the centrality of candidate locations, and whether they are more likely to be an entertainment destination or a quiet residential area.

3 Methodology

TO FOLLOW IN WEEK 5

Methodology section which represents the main component of the report where you discuss and describe any exploratory data analysis that you did, any inferential statistical testing that you performed, if any, and what machine learnings were used and why.

4 Results

TO FOLLOW IN WEEK 5

Results section where you discuss the results.

5 Discussion

TO FOLLOW IN WEEK 5

Discussion section where you discuss any observations you noted and any recommendations you can make based on the results.

6 Conclusion

TO FOLLOW IN WEEK 5

Conclusion section where you conclude the report.

Appendix

References

1. UK Postcode Data - <https://www.freemaptools.com/download-uk-postcode-lat-lng.htm>

Links

TO FOLLOW IN WEEK 5

A link to your Notebook on your Github repository, showing your code. (15 marks)

Your choice of a presentation or blogpost. (10 marks)