

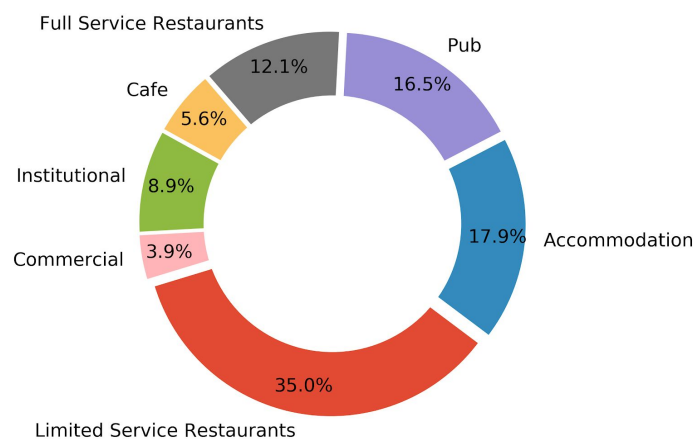
INTRODUCTION

Dublin is the capital of Ireland and located in the province of Leinster on the country's eastern coast and spread out over 318 square kilometres. Dublin has 1 million people living in the city and 1.2 million living in the contiguous urban area.

Dublin has one of the highest ratios of tourists to locals in the world, surpassing New York, London and Paris. Dublin attracted over 11 million visitors in 2019, about 427 tourists for every 100 hundred locals in the capital.

It is clear that there is a big market to get profit from. Moreover, the share of the market benefits to restaurants, regarding a study carried out by *Bord Bia 2019 Irish Foodservice Market & Consumer Insights Report*.

Ireland's Foodservice Market 2019 (€8.55 bn)

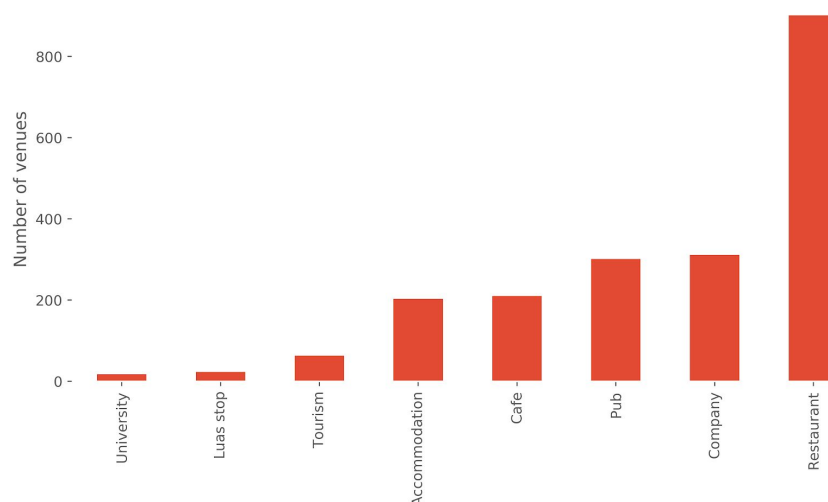


source: 2019 Irish Foodservice Market & Consumer Insights Report

Foodservice or 'Out of Home' is the term used to describe all food consumed and prepared out of home. Almost half of the market (47.1%) is shared by Full Service Restaurants, and Limited Service Restaurants, like fast food businesses.

Also we can see the distribution of venues in Dublin City, collected using Foursquare API

Distribution of venues - Dublin City Center



Although, due to Covid-19 there is uncertainty on the market at the time of carrying out this study, it might be an interesting long term investment for stakeholders that have enough resources to take advantage of the situation during 2020.

Customers visit a restaurant for the atmosphere and come back for the food and service.

How much of the truth is there in this statement in a city crowded by tourists? Could we say that being in the top ranking in a leader website might have a bigger impact into the revenue of the restaurant? Head chefs, executive chefs and managers hold a main role in the success of the business, however due to a shortage of skilled chefs in the industry, we can take into consideration different factors, so this study will be based entirely on business location.

There are also some aspects to take into account when choosing the location:

- *Population* in Dublin is growing, albeit also with the number of new businesses.
- *Accessibility* might be a key factor, so being situated close to a tram station would be a smart idea.
- *Surrounding businesses*, such cafes or pubs, where people use to visit them and come back to that area is good to consider. I might go for lunch first, and get a coffee with some pastry after that. Or meet some friends for a pint after having had a nice dinner. After all, we still are social individuals.
- *Affordability* will be higher in some districts far from the core of the city, however, will also have a lack of *visibility*, which is higher where tourists go, impacting on the business success.
- *Crime Rates* have a homogeneous distribution within the city center. Although there are some niches where crime rate is noticeable, the data from the central police station englobes all Dublin City, so for this project will not be an essential feature to consider. Moreover, in this case, crime rates are correlated to the districts, so having the price area by district will have implicit this data on the study.

Getting into the scope of this study, we can consider some questions, like if there is any relationship between restaurant success and the closeness to:

- ☐ the river Liffey that crosses the city
- ☐ a Luas tram station helping accessibility to your business
- ☐ accommodations, such as Bed & Breakfast, Hostels or Hotels
- ☐ tourist attractions and museums
- ☐ cafes
- ☐ pubs
- ☐ companies
- ☐ universities
- ☐ other restaurants

Is there any combination of the mentioned factors that would point where stakeholders should focus on? Well, as Data Science can offer a new perspective in the matter, we will go through all different features set using several machine learning tools in order to predict which would be the optimal solution.

We can have a closer look of these factors and the reason these have been included into the study enumerating some facts:

Luas (Dublin City tram)

On average 500,000 people travel within Dublin City Centre every day. This is made up of circa 235,000 work-related trips, 45,000 education trips, and 120,000 visitors, tourists, and shoppers. 42 million passenger journeys were made using the Luas in 2018. This is 23% of daily commuting.

Accommodation

Dublin had the highest hotel occupancy rate among European cities in 2018 (83.8%). Over 200 places in Dublin city that offer accommodation services.

Tourism

Most popular tourist attractions in Ireland are in Dublin. The Guinness Storehouse had 1.7 millions visitors and the Book of Kells attracted over 1 million visitors in 2019.

Cafe

Coffee culture in Dublin has been on trend in the last years. With over 200 coffee shops in Dublin City center confirm that the proliferation of cafe places with specialist baristas has been rising.

Pub

Irish pubs are the core of the city. With over 300 pubs in the city center we can see most of them are located in the famous Temple Bar area, mixed with many restaurants. Pubs in tourist-oriented areas like Dublin City are also more likely to serve food to their customers.

Companies

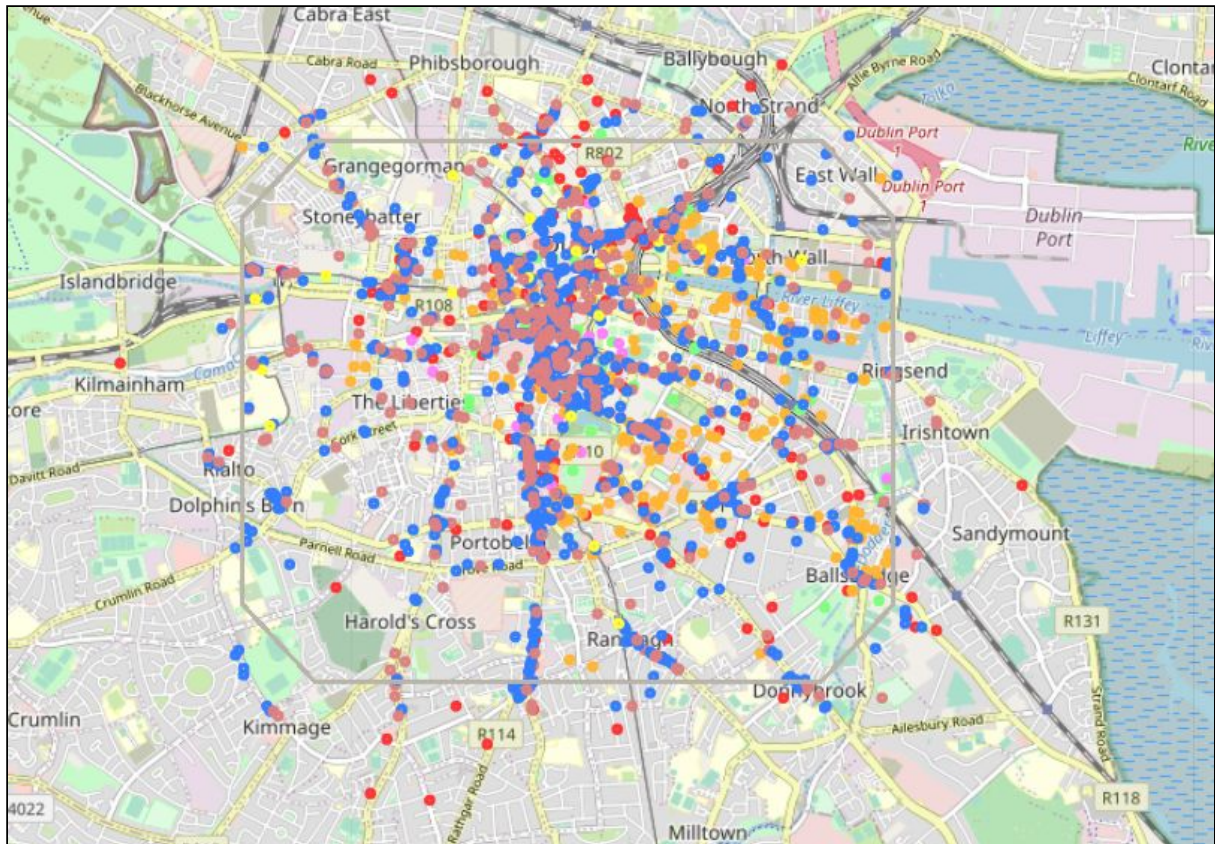
Over 100,000 employees had Dublin in sectors such as Pharmaceuticals, Medical & Dental Supplies, Tech companies and Engineering in 2018.

Dublin has the top 5 global software companies, 9 of the world's top 10 pharmaceutical companies, half of the world's top 50 banks, 250 global financial institutions, 12 of the world's top 20 insurance companies and 18 of the world's top 25 med tech companies.

Universities

Approximately 120,000 students in total attend the Dublin region's five universities. The oldest, Trinity, is in the heart of the city.

In the next map we can notice the distribution of venues in Dublin City, concentrated in the core of the city.



Tourism, Restaurant, Accommodation, University, Cafe, Pub, Companies, Luas stop, Project boundary