Introduction

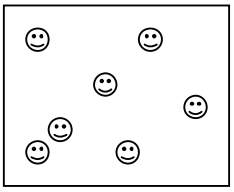
The CBD (Central Business District) is found at the centre of a city or town. It is the centre of commerce, entertainment and the focus of all transport routes.

The CBD's main characteristics are:

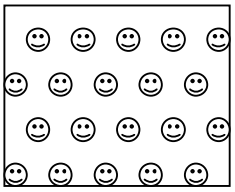
- There are a large variety of shops and chain stores and department stores, mostly dependent on passing trade. This means that most of these shops will most likely be in the centre, where most pedestrians are.
- There are both high and low order services in the CBD (Wide variety of goods).
- There are a large amount of professional services due to the demand for a prestigious city centre address.
- There are high land values due to the heavy competition for space and lack of space.
- Tall buildings due to competition for land; this allows more shops/offices to be situated on one area.
- Virtually no residential or industrial buildings due to shortage of space and high land values.

Our Hypothesis: Buildings of the same function cluster together in the CBD.

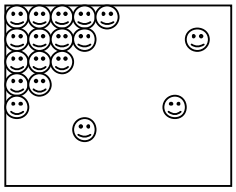
Functions in the CBD can be distributed in one of 3 ways:



Random



Uniform



Clustered

Random: This is when there is no apparent pattern among the functions of buildings in the CBD.

Uniform: This refers to a type of distribution in which there is regular distribution among the functions of buildings in the CBD. The functions may be evenly spaced.

Clustered: This is when buildings of the same function are grouped together in one area.

The aim of this project is to test the hypothesis.

There are a number of functions in the CBD, most of which can be broken down into two categories, high and low order.

High order functions consist mainly of professional services such as solicitors, insurance brokers and banks, but are also made up of specialist services such as jewellers and carpenters.
Low order functions consist of 'convenience' services such newsagents, sweet shops or supermarkets. Therefore, the higher order services may need land or properties which have more space, due to their need for machinery or storage, whereas low order services can generally be located in very small properties.

Distribution is also affected by the sphere of influence of a service or function. People may be willing to travel outside of the CBD to access certain services, therefore a highly priced address in the city centre is unnecessary. This makes it more likely for shops in this certain service to be randomly distributed. However, if people are not willing to travel far or outside of the CBD to access a service, a costly central address is necessary, making clustered distribution likely.

Functions may be found in the centre of the CBD or at the edge. This can be related to the Bid Rent theory. This theory refers to the change in land values in relation to distance from the centre of the CBD. Land value usually increases, as it gets closer to the CBD. This theory is related to distribution, as factories, residential buildings and large chain stores such as Sainsbury's are usually found at the edge of the CBD, where there is more space and land values are lower. However, there are few residential buildings that are found near the centre of the CBD, due to the fact that land values are high, there is a lot of pollution and there is no space. This means that shops, which rely on passing trade, mainly use the centre of the CBD.

In order to test our Hypothesis, we carried out our survey in the CBD of Derry.

Derry is situated in the North-West of Northern Ireland, 73 miles from Belfast. It is about 40km from the open sea. It was built mainly on the western side of the river. Vast quarries and forests provided plentiful fuel and building materials.
It was built in a meander of the river Foyle, providing both defence and a source of food. The actual city was built on and a dry-point site, a hill overlooking the Foyle. A natural bridging point up the river is the only bridging point between Strabane and the sea.

The location of Derry in relation to Ireland and the British Isles is shown in Map 1 overleaf, whereas Map 2 shows our study area within the CBD of Derry.

Methodology

CBD Boundary- The CBD boundary had to be established, a point where non-CBD land use begins; residential buildings for example. After the CBD boundary was set, a study area was chosen and then divided onto sectors. Because the CBD of Derry is so large, classes were divided into groups, with each group given a particular area to study. This meant that our class could cover the whole CBD of Derry in a small period of time.

Of all the functions of shops and services in the CBD, we chose 6 that we thought would be best to survey, as some are very popular and some reflect the change of trend in modern society.

Functions

1.Ladies clothes shops- to include department stores such as Dunne's Stores, Littlewoods, Next and Marks and Spencer. These should specialise in selling mainly ladies clothes.

2.Banks and building societies-theses will come under the general heading of financial services. Do not include Estate agents or insurance brokers.

3.Cafés-defined as a place where you can sit down and have a cup of tea, etc. Do not include pubs of any sort.

4.Furniture Stores- Does not include antique shops. These are defined as a shop that sells mainly/only furniture.

5.Newsagents- a shop at which you can buy a wide variety of newspapers, magazines, confectionary, etc.

6.Professional Services-these include accountants, solicitors, quantity surveyors and 'consultants'. Do not include medical services.

The class has been divided into 6 groups. Each group has been allocated an area within the CBD.

Each group has 3 tasks to carry out:

Task 1: Mapping the functions of the CBD

All the buildings that fell into our chosen categories were named and labelled; the results are given in maps 3-8.

Task 2: Measuring the nearest neighbour distances

Once a building was named, the distance between it and its 'nearest neighbour' was measured and recorded. A group member was nominated to measure paces between buildings. The size of the member's paces was then measured and the distances converted to meters. The results were recorded in tables 1-6.

Task 3: Pedestrian counts

Each group were required to participate in a pedestrian count between the times of 11:00am-11:15am. A tally chart was made and the amount of people who passed was recorded. The results are given in table 7 and map 9.