Geography Coursework

To what extent does Shrewsbury fit the core-frame model?

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Shrewsbury is the county town of Shropshire and sits to the West of Birmingham and to the south of Manchester. Shrewsbury now has a population of around 67,000.

The aim of the coursework is to assess the land use of Shrewsbury by using a variation of sampling methods in order to see if the CBD fits the core-frame CBD model as shown in figure 3.

Shrewsbury started life as a Saxon town built in the meander of the River Severn. It was the third largest settlement in medieval times and established itself as a market town which is evident still today in the town.

Development of strategy

In order to try and compare Shrewsbury's land use with the model it was necessary for us to use sampling techniques to obtain information. We used pedestrian counts and the retail index to obtain the pedestrian density in areas and to observe the land use in Shrewsbury.

The variables in our sampling techniques were pedestrians, land use and the retail index .The pedestrian counts were taken to give an indication of distance decay which is the fall in pedestrian densities as you travel

further away from the town. The pedestrian counts were taken from local knowledge in a point sampling technique. The retail index gave us a clear indication of the land use in Shrewsbury and allowed us to compare the figures of the different areas to try and ascertain the CBD of the town.

We also recorded all the banks and charity shops throughout the town to enable us to establish an inner core from the position of the banks and to also establish the zone of discard which is the area of relatively cheap land near the centre where charity shops tend to cluster. We used the land use patterns of Shrewsbury to see if it conformed to the Burgess concentric circle model.

Collection of Data

To get our results we firstly split Shrewsbury into 6 retail areas by number of retail premises, these 6 areas were then split into 3 zones as shown in fig 3.

One pedestrian count was taken in each pedestrian area and zone. The pedestrian count was done from a point sample based on the local knowledge of the area. To maintain fairness in the results the counts were

taken from 11:30 to 12:30 on Saturday the 8th of March and lasted 3 minutes for each count.

To record the land use in Shrewsbury a recording were made every 25 metres on the left hand side of the road only in the same 6 areas as split for the pedestrian count. It was important to use a systematic sampling strategy on the selected radial routes from Shrewsbury's town centre.

To record the retail index a number was drawn on the choropleth map indicating the retail index of each individual shop as we walked through the town.

Analysis, Evaluation and Interpretation

From each type of data set we recorded in Shrewsbury it is evident that Shrewsbury fits the core model in many ways. There are also some of our results that show otherwise which might suggest that either some parts of the town do not fit the core frame model or that we had some error in our results.

The nearest neighbour index for banks and charity shops shows clear clustering as represented in the choropleth map of the town. This matches the core frame model.

The retail status choropleth map of Shrewsbury shows a clear high number towards the centre in area 1 on the map and lower retail index numbers can be seen further to the outskirts of the town. The map and figures may not have shown this as clear as we would have liked due to erroneous results.

The choroisopleth map of pedestrian density shows clear distance decay and allows us to draw an inner core outer core and frame which fits the core-frame model well.

The Spearman's rank correlation when looking at the retail index value and the pedestrian count average concluded that there was no correlation between the density of pedestrians and the retail status in Shrewsbury's CBD as shown on fig 6. Although we almost know this is false, errors in our results mean we must accept this null hypothesis. This does not match core frame model which suggests distance decay in pedestrian density as you move out of areas of higher retail index value.

Summary

There were many limitations to our sampling techniques and interpretation of our data. The pedestrian count was limited due to the fact that we only did 3 counts at each location. Other factors such as the route straight from the car park to the shopping centre would also have affected the count and caused our results to be erroneous.

Our nearest neighbour index was on the whole accurate and allowed us to ascertain the CBD in which the banks were and the discard zone where the charity shops tend to cluster. However factors such as whether a building society constituted as a bank could have changed our results.

Our study of Shrewsbury could have been taken further with a higher amount of pedestrian surveys at a range of times in more areas to make results more reliable. Our results were on the whole reliable but as the Spearman's rank correlation showed it was not always accurate. The results allowed us to compare Shrewsbury with the core-frame model and in response to the question it is fair to say that Shrewsbury's CBD does fit the core frame model although showed otherwise by results which may have been faulty.

Bibliography

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- *Fieldwork Techniques and Projects in Geography, second edition- Barnaby Lenon , Paul Cleves*

- *Geography for AS-Clive Hart*
- *Geography, An Integrated Approach- David Waugh*