How does the sphere of influence of a computer shop change as it becomes larger?

Methodology

Pilot studies and forward planning

Before I carried out the actual fieldwork, I conducted a pilot study a few days beforehand. With the pilot study, I tested out my questionnaire on 3 people (one for each shop). I had no problems with the questionnaire and I used the same questionnaire for the actual experiment (see appendix).

Sampling

It would have been very hard for me to question every single person who left the shops so instead I chose to question 20 people for each shop. I thought that this would give me enough data to make good conclusions. Also, I could not question 20 people leaving the shop in a row because by the time I would question one person, I could miss someone else, so I decided to use systematic sampling and I questioned every third person I saw.

Why was the data collected?

Size of the shop – I needed to know this because hypothesis 1a was to find out if the amount of people entering and leaving the three shops increased as they got larger. Therefore, I needed to measure the size of each shop to see whether or not the amount of people entering each shop increased as the size also increased.

Amount of people entering and leaving – I needed to know this because hypothesis 1a was to find out how the amount of people entering and leaving the shop changed as the shop got larger.

Bi-polar analysis – I needed to know this because I wanted to see if the larger shops were located in a more pleasant area as opposed to the smaller shops.

Questionnaire:

1. **Which town or village have you come from?**

   I needed to know this because hypothesis 1b was to find out if people living far away were more likely to shop at the larger shops and if people from the local area were more likely to go to the smaller shops.

2. **Which mode(s) of transport did you use to get here?**

   I needed to know this because I wanted to see if people going to the larger shops were more likely to use a more expensive means of transport to get there and if the people going to the smaller shops were more likely to use a cheaper means of transport
3. **Approximately, how long did it take you to get here?**

   I needed to know this because I wanted to see if people were prepared to travel for longer to get to the larger shops and if people coming to the smaller shops were only prepared to travel a shorter distance.
4. **Why have you come to this particular shop?**

   I needed to know this because I wanted to see if there was a trend in the reasons for this answer and the size of the shop they had gone to (e.g. people would give the reason "I'm just looking around" at the smaller shops because they are more specialist and offer products for a smaller range of people).
5. **How much are you planning to spend?**

   I needed to know this because I wanted to see if people spent more money in the larger shops as opposed to the smaller shops.
6. **Do you feel that you get enough assistance from the staff who work in the shop?**

   I needed to know this because I wanted to see if the larger shops had better assistance from staff (e.g. to keep a good image amongst the customers).
7. **How often do you come here?**

   I needed to know this because hypothesis 1c was to find out if people from the local area were more likely to come more frequently to the shops as opposed to those living further away.

How and when was it collected?

This was how I collected all the data, in the order that I did it in:

Questionnaire – 13:00

Whenever I asked someone a question with a list of possible answers, hardly any of them said "Other", which showed that these questions had well enough possible answers for most of the interviewees and they did not need to think for a long time for an answer, instead at least one the possible options applied to them. Here are the questions:

1. **Which town or village have you come from?**

   For this question, I simply wrote down which town or village they came from.
2. **Which mode(s) of transport did you use to get here?**

   For this question, I simply wrote down which mode of transport they used.
3. **Approximately, how long did it take you to get here?**

   For this question, I simply wrote down how long it took them to get to the shop.
4. **Why have you come to this particular shop?**

   For this question, I gave each interviewee 5 options to choose from which were “Cheap”, “Good quality”, “Accessible”, “I’m just looking around” and “Other”. If one of them said “Other”, I would write down what reason they gave.
5. **How much are you planning to spend?**

   For this question, I simply wrote down how much they were planning to spend.
6. **Do you feel that you get enough assistance from the staff who work in the shop?**

   For this question, I gave each interviewee 3 options which were “Yes”, “No” and “Don’t know”.
7. **How often do you come here?**

   For this question, I gave each interviewee 6 options to choose from which were “More than once a week”, “Once a week”, “Once a month”, “Once a year”, “Hardly ever” and “Other”. If one person said other, I would write down the answer they gave.

I also included at the bottom, something which I filled in, which was the sex of the interviewee and their approximate age. For this, I simply wrote “1 2 3 4 5 6 7 8 9”, so for example, if I thought someone was in their 30s, I would circle the number “3”.

Size of the shop – 16:00

To measure the size of the shop without using a tape measure, I walked both horizontally and vertically across each shop. I made sure that every step I took was the same length. I counted how many steps it took for me to get from one side of the shop to another. When I got back home, I then measured how long one of my steps

was. I then multiplied this by the number of steps I took, and then calculated the area of each shop.

Amount of people entering and leaving – 16:25

I stood just inside the shop and counted the amount of people entering and leaving each shop for 3 minutes. I did not count each of them separately (i.e. I counted the amount of people entering and leaving both in the same period of 3 minutes).

Bi-polar analysis: - 16:45

				Shop no→	1	2	3
Cheerful	7	to	1	Depressing			
High class	7	to	1	Low class			
Healthy	7	to	1	Unhealthy			
Spacious	7	to	1	Cramped			
Quiet	7	to	1	Noisy			
Beautiful	7	to	1	Ugly			
Interesting	7	to	1	Uninteresting			
Well designed	7	to	1	Poorly designed			
Fashionable	7	to	1	Unfashionable			
Clean	7	to	1	Dirty			
Safe	7	to	1	Unsafe			
				Total→			

For the bi-polar analysis, for each shop, I stood in front of the shop and turned 360 ^{o} and then gave a score from 1 to 7 for each description (i.e. che erful to depressing etc). I then counted the total for each shop.

Photos – 17:10

I took a photograph of each shop from the outside. I made sure that the whole shop could be seen, to check the size of each shop, and also made sure that I could see the surroundings of the shop (e.g. was it on a main street or indoors).

Data Presentation

A bar graph to show the amount of people entering and leaving each shop

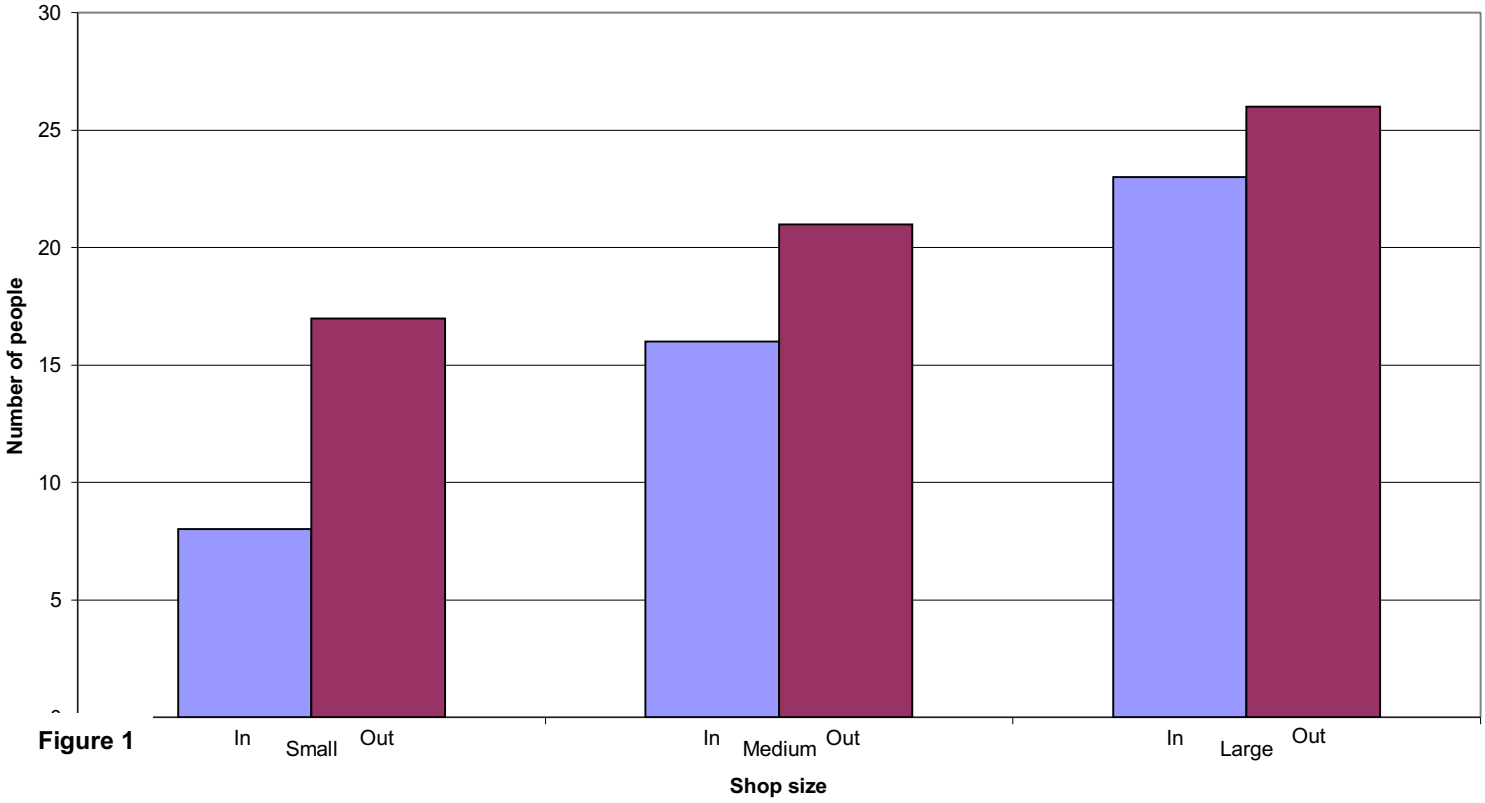

Figure 1

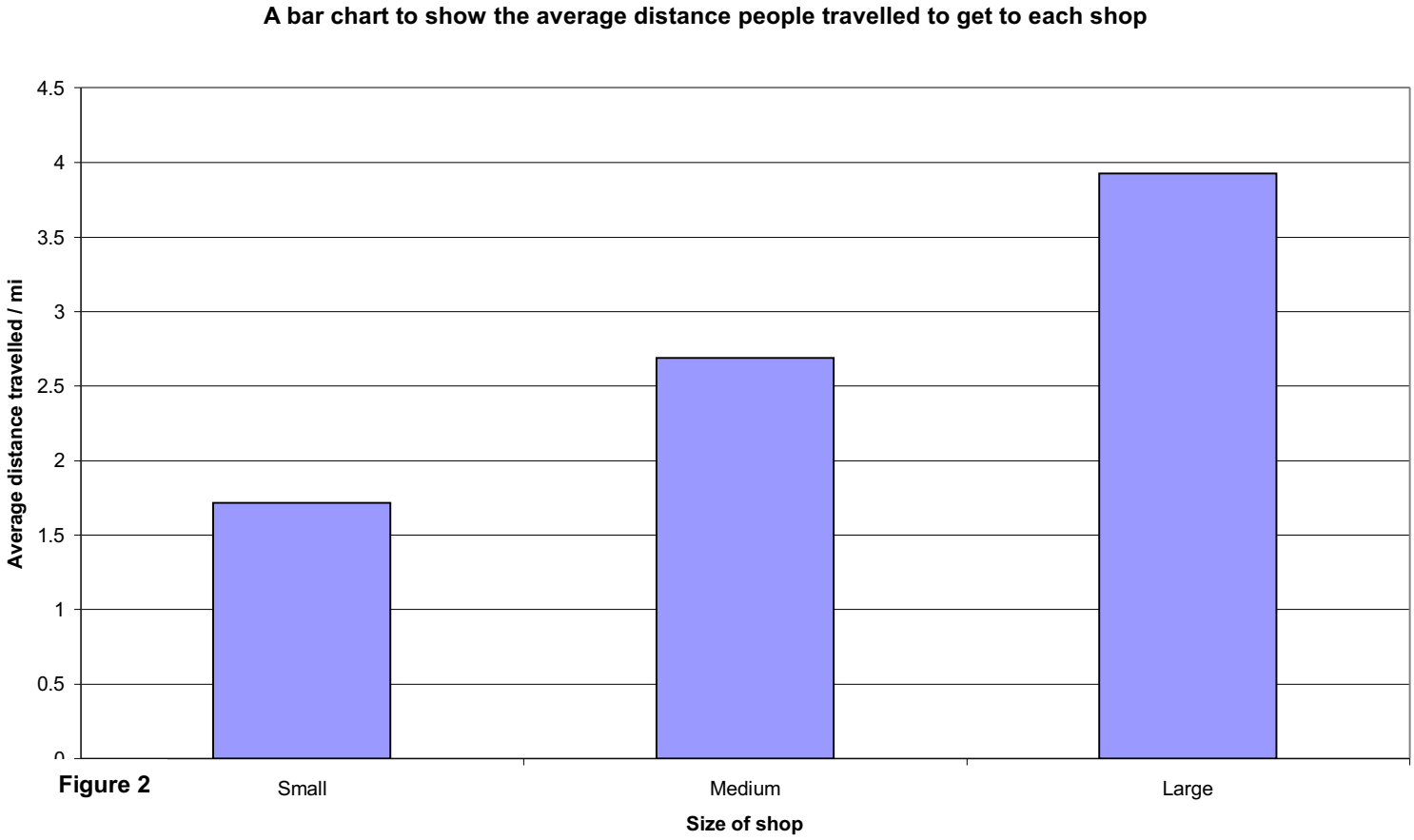

Figure 2

This graph clearly shows that as the size of the shop increases, the average distance people are prepared to travel to get to the shop increases. This is because the larger shops probably have a larger range of products available. This means that more people will be able to find the right product that they want as there will be a greater chance of finding the product that they want in the larger sh ops.

A pie chart to show a breakdown of the distances travelled by people to the small shop

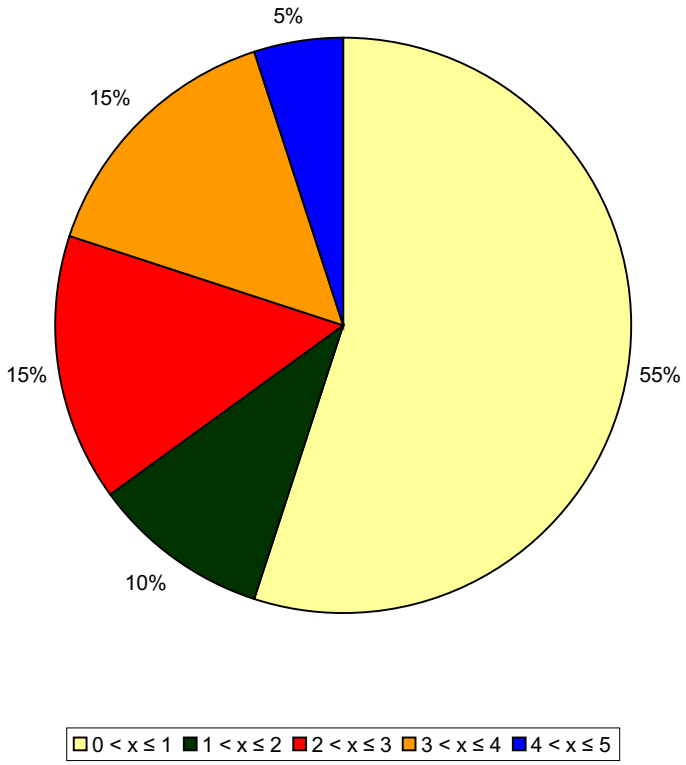

Figure 3

This pie chart shows a breakdown of the times it took for the interviewees to arrive at the small shop. The chart clearly shows that for more than half the people, it took them less than one minute to get to the shop. This chart prove s my analysis of the previous graph more graphically and it is easy to see that people are prepared to travel less distances to get to the small shop.

A pie chart to show a breakdown of the distances travelled by people to the medium shop

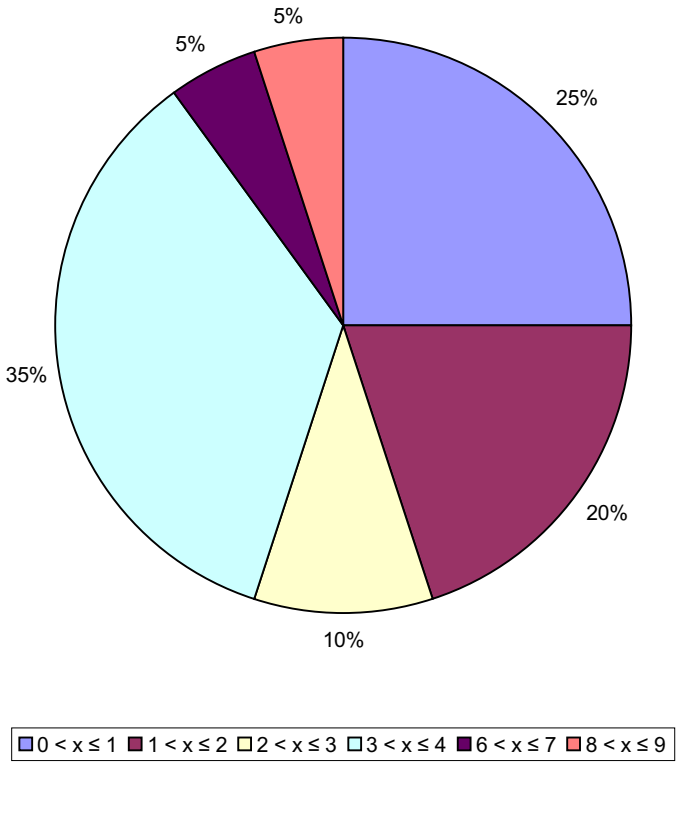

Figure 4

This shows the times it took for people to get to the medium sized shop. The times are a lot more spread out than for the small shop, which means that people are prepared to travel for a slightly longer time to get to the medium sized shop.

A pie chart to show a breakdown of the distances travelled by people to the large shop

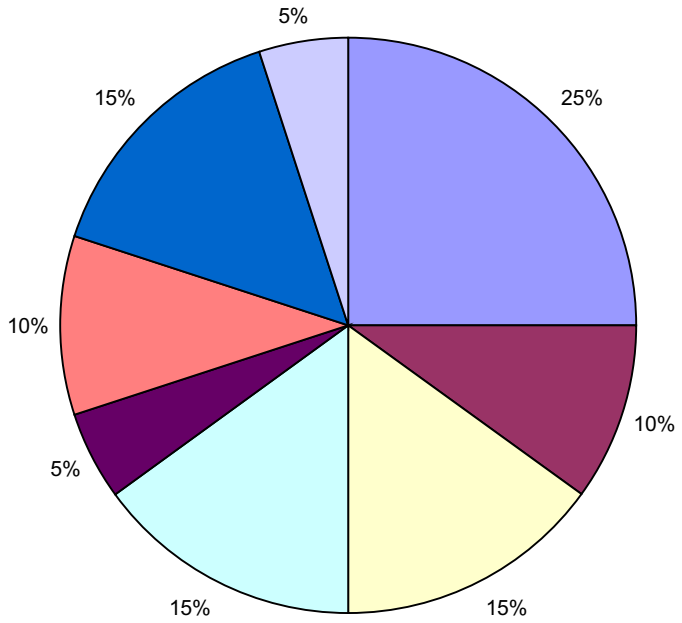

Figure 5

This chart shows the times it took for people to get to the large shop. It is clear that more people are prepared to travel for a longer time to get to the large shop. This clearly shows that the larger the shop, the longer people are prepared to travel to get to that shop.

A pie chart to show the breakdown of which modes of transport people used to get to the small shop

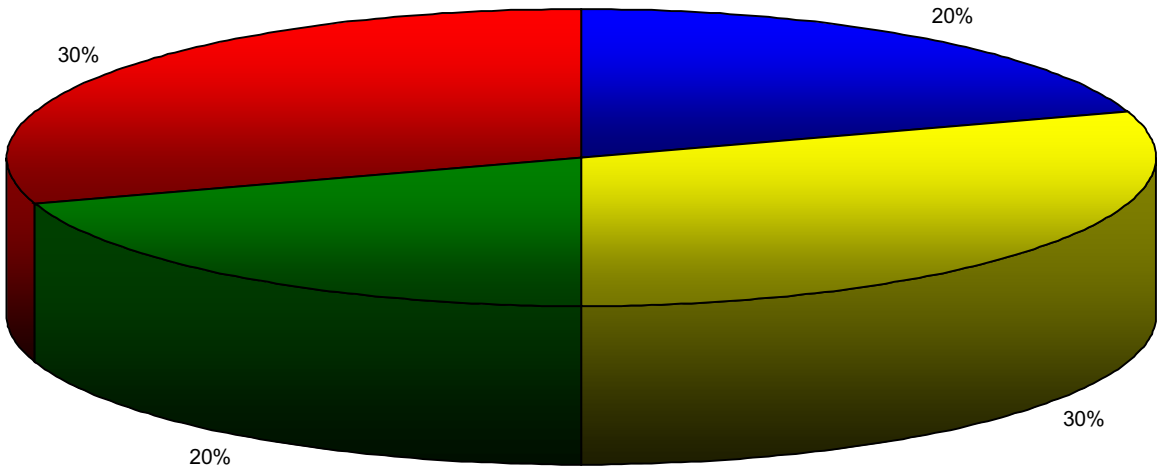

Figure 6

This graph shows that the majority of people going to t he small shop do so by either walking or using the bus. These are mainly used for short distances and are also relatively cheap. This shows that people want to use cheaper modes of transport to get to the smaller shops as they do not want to spend too much money getting to a small shop which will probably sell very few products.

A pie chart to show the breakdown of which modes of transport people used to get to the medium

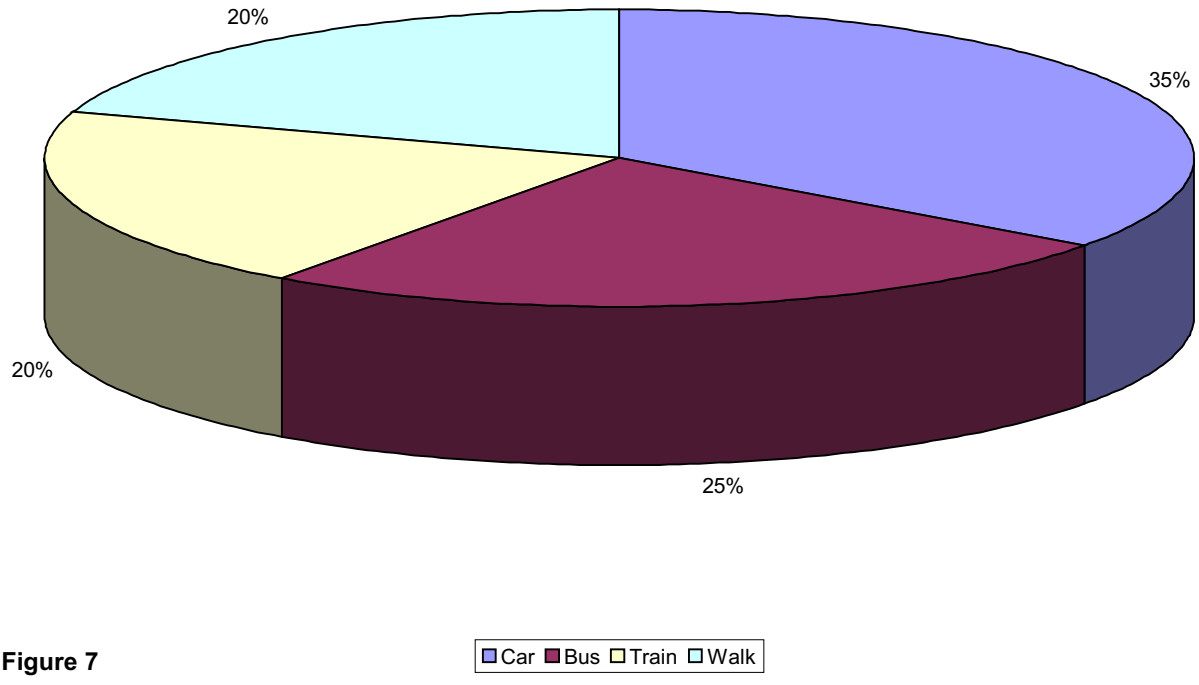

Figure 7

A pie chart to show the breakdown of which modes of transport people used to get to the large shop

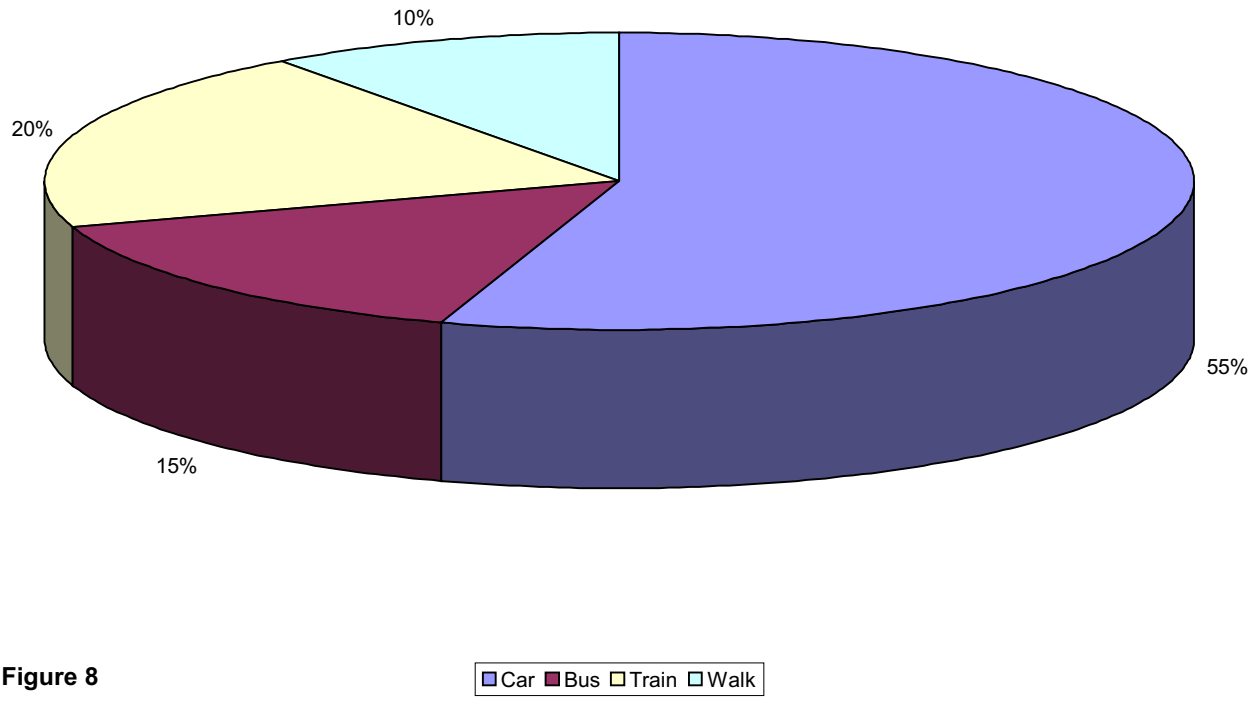

Figure 8

A doughnut chart to show the breakdown of reasons people gave for why they came to the small shop

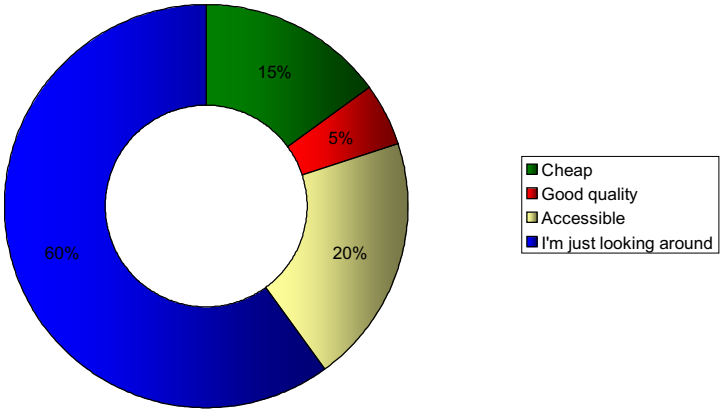

Figure 9

A doughnut chart to show the breakdown of reasons for why people came to the medium shop

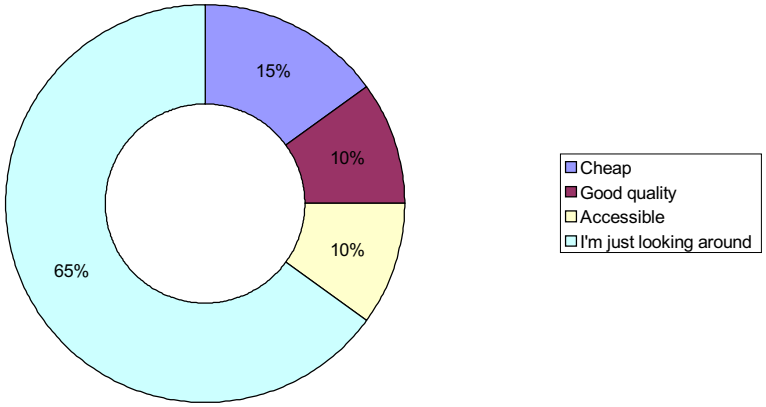

Figure 10

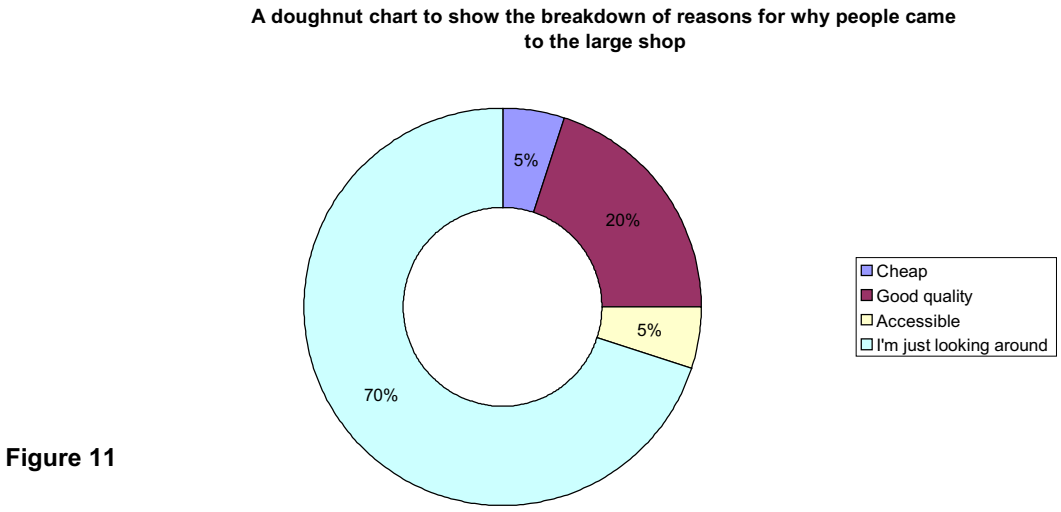
A doughnut chart to show the breakdown of reasons for why people came to the large shop
5%
20%
5%
70%
Cheap
Good quality
Accessible
I'm just looking around

Figure 11

A graph to show the average times it took for people to get to each shop, the average amount of money people spent in each shop and the average frequency of visits of people to each shop

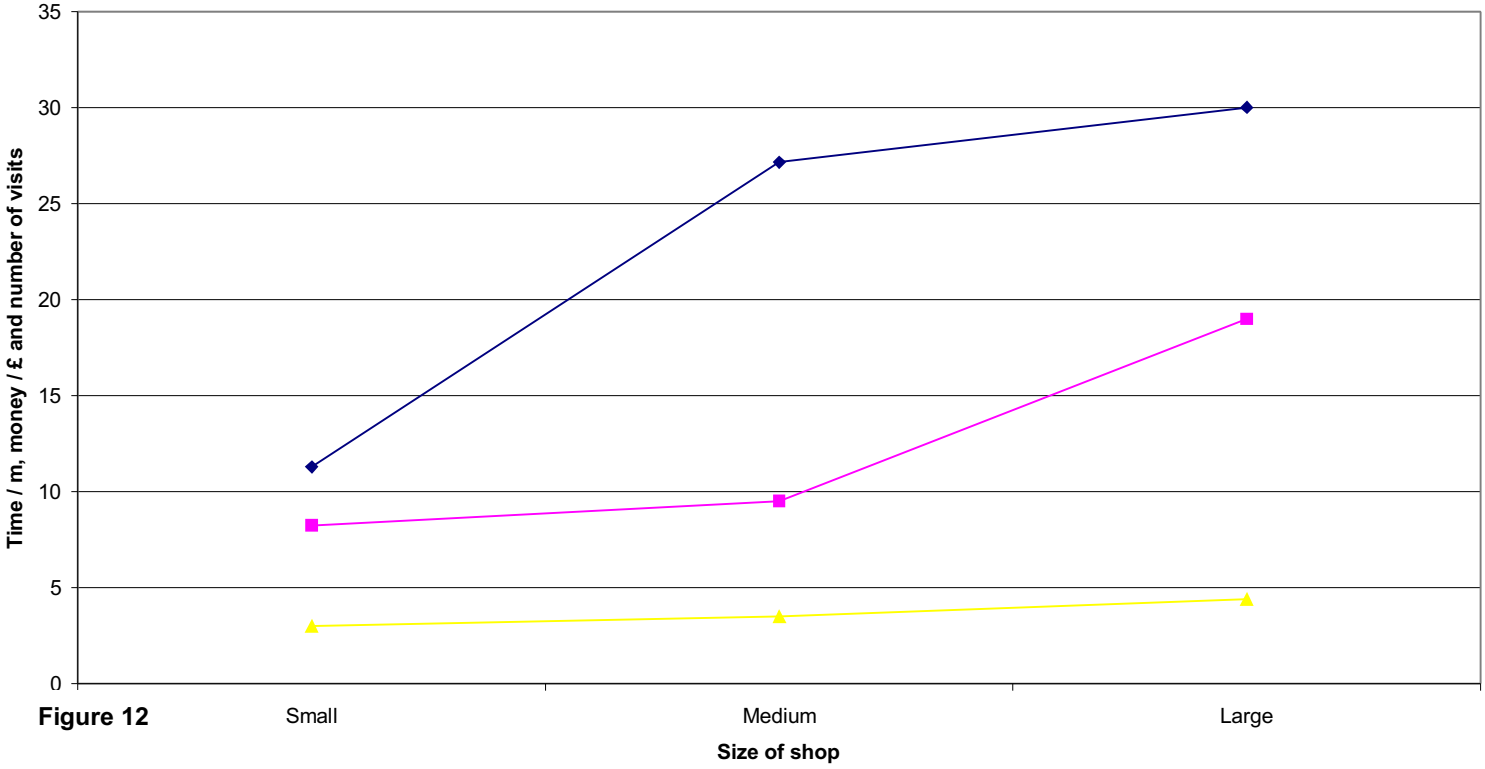

Figure 12

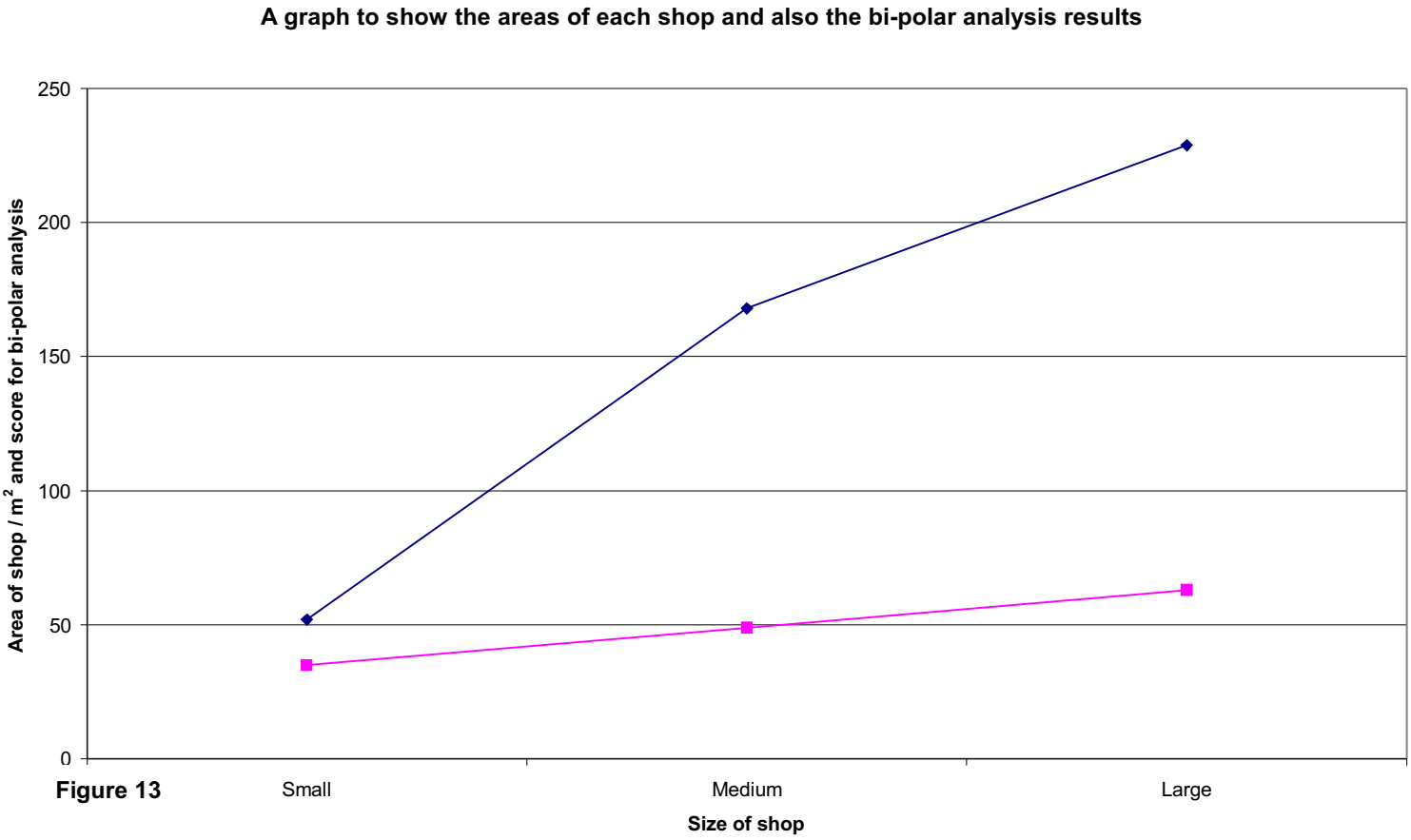
A graph to show the areas of each shop and also the bi-polar analysis results
250
200
150
100
50
0
Area of shop / m2 and score for bi-polar analysis
Small
Medium
Large
Size of shop

Figure 13

Evaluation

Overall, I felt that my whole fieldwork went well and that I was able to obtain reliable results. However, there were a number of things which I felt that I could have improved on to make them even more reliable.

One thing which I could have improved on would have been to question more people. This would have increased my sample and thus improve my results further. The reason for this would have been that by questioning more people, I would have got more results, which would have also made it easier to make conclusions as the correlations between the different results would have been more profound.

The reason that my sample was different was that it would have taken too long to question extra people, and it may have meant that I needed to continue the fieldwork on another day and the number of people in a shopping centre can vary dramatically during different days. Therefore, I needed to keep the sample at 20. This meant that my results were pretty scattered as I did not have enough results. Due to this, I found it much harder to draw concrete conclusions as I did not have enough results.

However, despite not having an ideal number of results, I still felt that my conclusions were quite accurate. For example, all of my hypotheses were true such as the main one which was that the sphere of influence would increase as the size increased. This was shown by how the distances people were prepared to travel to each shop increased as the sizes of the shops increased. It was very important to prove my hypothesis true as it was backed up by a strong argument which meant that my results were very strong.

On the other hand, I realised that although my results backed up my hypotheses, they were defiantly not perfect. For example, ideally a sphere of influence diagram should be a perfect circle but my ones were not rounded. For example, for one of the shops the sphere of influence was the same radius (i.e. distance between the shop and where the customer lived) towards the north of the shop, but at the south hardly any people came to the shop. There could have been many reasons for this.

Firstly, in the places from where less people came from, there could be another, better shopping centre, where people who live there prefer to go to that one

instead. Also, there could be bad road networks in the area which would mean that it would be harder for people who live there to go to the shopping centre. Or quite simply, it might not be a built up area, which would mean that not many people live there, so there would obviously be less people visiting the shops from that area.

If I could plan a further study, I would increase the sample size. This would mean that I would have more results to use to make a better and more reliable conclusion.