Statistics 747 – Assignment 4

Due 4pm Oct 14th 2010

Your client owns a chain of cafés and wants to understand what is important to their customers. They have carried out a survey using the questionnaire available online at <http://www.stat.auckland.ac.nz/~balemi/cafeqns.pdf>. The resulting data is available online at <http://www.stat.auckland.ac.nz/~balemi/cafe.csv>. A wide range of cross-tabulations have already been carried out, and now the client wants you to investigate whether there are segments of their customers that have different feelings about what is important.

i) Explore the data, and in particular the questions about how important various service attributes are. Describe any modifications/cleaning of the data that would be appropriate before carrying out the cluster analyses outlined below, and modify the data accordingly.

ii) Conduct a k-means cluster analysis based on the importance questions only. Obtain a 3 cluster solution.

iii) Find discrimination ‘rules’ for the variables that were not used create these segments. What do these rules tell you about these underlying segments?

iv) Describe the market segments and hence name them.