Group Project
(30% of the final mark)

Important Dates

Presentation, final report, and auxiliary files due: Tuesday, March 22nd at 12:00 (noon)
Drop-in session for questions: Tuesday, March 15th,

The group project is an opportunity for you to serve as a retail analyst for Kantar Worldpanel, one of the major suppliers of panel data in the UK. The objective is to provide you with hands-on experience on the practical problems retail data analysts face. It will also allow you to experiment with what the real job of a data analyst feels like, an experience extremely valuable once you are on the job market.

Kantar Worldpanel selected two product categories and provided a dataset extracted from their Worldpanel for each category (for more details: http://www.kantarworldpanel.com/en). The two categories are:

1. Instant Coffee (more than 270,000 individual level transactions ; csv file)
2. Carbonated Soft Drinks (more than 1 million transactions; csv file)

The datasets include very valuable information but they are in a "raw" format (very similar to what you would receive from a data vendor with minimal analysis performed).

Kantar Worldpanel and I developed a series of research questions that you will need to address as a team. Each group project is a combination of a product category (Coffee or Carbonate Drinks) and a research question. In class, on **Tuesday Feb 23rd**, I will randomly assign a group project to each team. You will need to provide your **team composition** by **Monday Feb 22nd at 6:00 pm**. Each team should have about **six members.**

The deliverable of the project is a final report and a presentation, both due on **March 22nd at 12:00 (noon)**. The dataset in the format of the software you used (e.g., in R) and the final scripts used (only the clean ones used to obtain your final models and analyses) are also due. These should be uploaded together with the report and presentation.

The **final report** is a short written brief. The brief should be no longer than **2,000 words** (minimum font 11pt; word limit excludes references, title page, or index if included) with up to **four pages of appendices** if necessary. The report should provide a brief explanation of the approach adopted and the findings (that is, it should provide a clear answer or at least an attempt to answer the research question). The **"audience"** of the report is your **instructor** (you can use technical jargon).

The **presentation** should take about **10 minutes** although, depending on the number of groups formed, we could think of giving each group 15 minutes including Q&A (we will need to consider the time constraints of the last session). The **"audience"** of the presentation are **brand managers** and these might not be familiar with all the technical jargon. You need to find a way of communicating to this audience effectively. I am very much open to alternative formats (just think about communication effectiveness).

During the presentation, it is possible that a representative of Kantar Worldpanel will be part of the audience to hear about your approaches and findings (not yet confirmed). Kantar Worldpanel is also actively hiring and this is a great occasion to impress a potential employer.

I would recommend you to consider several milestones during the project execution
(consider also that **Tuesday March 15th** there will be a drop-in session)

1. Know your data

Read in the data using the software of your choice and provide initial summary statistics. The idea here is to be curious. Do not limit yourself to simple means and standard deviations. Try different alternative plots and alternative forms of visualizing the data. Find out how many products there are, what different types of price promotions were used, what stores are present in the data, whether they are from the same format, whether all brands sell equally well across all stores, and if all stores have private labels of all types. Try some group means and some cross tabs think in a creative way for example how to put brands together and you need to become an expert with your data.

2. Think of how to answer the research question

Before starting the analysis think about the problem, the market and the factors that need to be taken into consideration. Do you know which models to use and the type of analysis that can answer your research question? Can papers in the literature help you? Have others in the past proposed a model or an analysis that you can use? Think before you act!

3. Analysis and report building

You will perform several analyses, try different approaches and likely run many models. E systematic (don't lose track of what you have done and keep a record of what you found). This is a delicate stage, in which you can get lost in the many analyses tried. Remember, the datasets are "fresh", new, created for this course and hence, just like in real life, you might not get the results you expected and you might not be able to find a clear answer. The process is however important, and you need to try to get the results needed and build a presentation that communicates your findings to the client (in this case Kantar Worldpanel)

Criteria for Assessment

I will mark reports and presentations based primarily on content, but I will consider also communication effectiveness. I will consider the following criteria:

1. Quality of the approach taken and results (60%)
   (answer the research question)
2. Clarity of expression and effectiveness of communicating results (20%)
   (think about a client who might not know of all the technical jargon)

3. Depth of analysis (20%)
   (both in the initial analysis of summarizing the data and in the analysis of providing an answer to the problem)

Report and presentation will have a single joint mark but I will provide feedback on both components to each group.

Final Note:

For more information on marketing in general (and pricing in particular) you can also access the following website http://www.kantarworldpanel.com/en/Expertise/Pricing/What-we-know- and explore additional links.