**Statistics 747 – Project Part 1**

**Due 15th September 2010 10:30am**

**Research Brief**

DB Breweries (DB), who produce and sell Heineken beer, have come under increasing sales pressure from their main competitor New Zealand Breweries’ (NZB) premium brands, Steinlager and Stella Artois. As NZB have two premium brands DB wish to see if they should re-launch their Heineken bottle in a new “Extra Long Neck (XLN)” format to increase customer appeal and take share away from NZB. In particular, they wish to maximise overall market share without ‘tarnishing’ Heineken’s, current premium image.

Note that, in the past Steinlager used to be DB’s main premium competitor, but since the introduction of Stella Artois, this brand has languished somewhat and is not seen as influential as this new product.

They would also like to now how all these brands/product changes may affect their non-premium brand Export Gold, other premium brands, as well as other non-premium brands.

All prices expressed below are for a dozen bottles.

In short, DB Breweries would like to ascertain:

* How do the 3 premium brands (Steinlager, Stella Artois, Heineken), react to each other’s prices (these can be offered at ‘special’ discounts of $18.95 and up to a maximum of $22.95)?
* Does the Heineken XLN product format have the desired marketing effect?
* How does the Heineken brand affect the share of one of their more popular (but not premium) brand, DB Export Gold (assume its prices can range from $12.95 to $14.95)?
* Does it take share away from other premium beer (assumed to be the fixed price of $19.95)?
* Does it take share away from other ‘mainstream’ beers (assume they are at a fixed price of $13.95)?

Your specific tasks are to:

1) Interpret the above information and produce an experimental design that measures all the price effects of interest

 **Notes:**

As many interaction effects (as possible) will need to be estimable

* The SAS macros: **%mktruns** and **%mktdes**, which each can be found in I ‘**Choice.pdf**’ on Cecil, will be useful here
* A detailed explanation (in layperson’s terms) is required to find out describe why you came up with this design
* No more than 30 runs/scenarios may be given to each respondent

2) Produce the relevant scenario set you would obtain from this design that you would display to possible respondents.

* An example of two possible scenarios can be found in ‘**Proj.ppt**’ on Cecil. This can be used as a template for producing the other scenarios.
* Print them out 4/page and double sided to avoid destroying too many forests!

3) Explain the benefits of performing this experimental design and also why you recommend ‘choice modelling’. Remember this is an intelligent but not s a statistically savvy client.