EXAMINER'S REPORT

MAY 2005

MARKETING INFORMATION ANALYSIS I (MIA I)

General Comments

1.   As you know, the paper is designed to test basic skills relevant to business information and marketing research. Students are asked to attain an overall level of competence in these rather routine tasks rather than to master unusual or tricky problems. The format of the paper does not change from year to year (i.e. eight areas of the course are examined every session over eight questions). So this paper bears a strong resemblance to those set in previous years. Students should know this and be prepared. For that reason, I guess I am always hopeful of much better results than the 60% of candidates passed this time. Still, this is better than in May exams over the past two years. So it must be classed as a good result overall.

2.   The remarks I make this year are really no different from those made since such reports were instituted many years back. However, as the students each year approach the MII programme for the first time, these comments are new for each group. Remember that marks are available in this paper irrespective of mathematical talent. Given a variety of tasks in the paper, one should use this fact to optimise one's score. This paper is structured to give some recognition even to those who have an aversion to numbers.

Some questions, such as those relating to sample types, the design of research, research report writing or the meaning and use of particular techniques, suit candidates who are good at essay writing. Others, who have the ability to perform basic calculations using fairly standard formulae, could find about 50 marks scattered over the eight questions. These included a calculation for confidence intervals, the mean and standard deviation, correlation, regression, time series and index numbers. All of this is fairly routine stuff. If one wished to be more adventurous (as was apparent in one of the regional centres), conducting tests of hypothesis are fairly routine and can generate pretty good scores.

The point to be noted is that, while the learning envisaged in this course ranges over a variety of issues, all of which are important, the exam at the end of the year must be passed. A pragmatic approach is required and a study of past papers will reveal where a particular candidate can gain most marks. She or he should then concentrate on those areas.   In marketing terms, it might be termed 'segmenting by aptitude' - you pick the questions that will generate the best scores for YOU.

This year the pass rate was 60%, which is better than in May over the last two years. Every question can attract full marks and one excellent paper contained a full five questions where this was achieved. So congratulations to the person who got 100%!

Question 1

While it was quite popular, the answers weren't great. The number of interviews is obtained by dividing the cost of fieldwork by €6 which is the cost per interview. Few were able to calculate the necessary confidence interval using the usual formula. This is quite serious as every MII student should learn to master such material, given its importance for survey research. Those who don't like numbers should be able to distinguish between probability and non probability samples and should know the advantages and disadvantages of each. Also, I consider everyone should be able to divide up a sample of 1,200 respondents given the age and gender distribution of the Irish population from Census data.

Question 2

The drawing of a histogram from raw data is very simple and everyone should be able to do this perfectly. Also, the calculation of the mean and standard deviation are standard skills that should cause no problems.

Question 3

The total of 12 months data for each year gives the annual data which can be used to calculate an overall annual index for the relevant years. A question on the Consumer Price Index is fairly standard and students should note that the Central Statistics Office website at www.cso.ie provides a complete description of how the CPI is calculated. Many candidates were able to give two industrial or business uses of indices so this gained them a few marks.

Question 4

As usual, the question on time series was well performed by students irrespective of their overall results. On this occasion, three months data had to be totalled to produce the quarterly data before anything else was attempted. As this took significant time, generous allowance was given by the examiner. Students were generally able to graph the data and to calculate the trend. The calculation of seasonal variation and forecasts were also generally dealt with in a competent manner. This was by far the best question for many people.

Question 5

Students are reminded that a scatter diagram should not include any lines joining the points. It is important also to correctly position both the X and the Y axes. It was most surprising this year to see people incorrectly labelling the vertical axis as X. Remember that you were also asked to interpret the findings from the scatter diagram.

The calculation of a correlation coefficient must use the correct formula. Many students used the formula

$$r = \frac{\sum xy}{\sqrt{x2.\,y2}}$$

which can only be used where you realise that
$x \text{ is } X - \overline{X} \qquad and \qquad y \text{ is } Y - \overline{Y}$

The use of a regression line was necessary to make forecasts.

Question 6

There is very little that can be said about this question on various aspects of probability distributions. Very few attempted it and among those who did, very few knew anything about the subject matter.

Question 7

In some centres students have elected to concentrate on the syllabus section dealing with significance tests. This seems to be a good strategy as they generally gained good marks. Not only is this subject area important for our understanding of research findings but concentration on this topic is to be recommended for a second pragmatic reason - which is that it also arises in MIA2. The chi-square test is relatively straightforward and was well done by a few. Significance test for percentages is another standard topic but it tended to be poorly answered. Again the better answers undertook a full hypothesis testing procedure. It should be noted that a significant number of candidates fail to complete this question. Although they correctly calculated the standard error of the difference of two sample percentages, they merely used this figure in place of the test statistic Z.

Question 8

Guidance for writing a research report might be divided into two broad sections:
  i.   guidance on what should be included in any report;
  ii.   advice on the style and focus of the report.

Many people were rather inaccurate in answering the short questions from the table of Internet Research data. For example, when you are asked " How many people ……" , the answer is expressed in thousands. Where a cell shows a number and a percentage below it, for example, Internet User 1054 and 34.9% (top left hand corner of the table), the 1054 is in thousands. So the answer is 1,054,000 (or 1.054 million) people were Internet users, according to this survey. Note that the survey refers to all adults 3.017 million while the total number of people included in the sample is just 9915 people. The pass rate for this question was OK.