Introduction to
Quantitative Research
Quantitative Research

- **Quantification - i.e. numbers**
  - e.g.
    - 51% of the population is female
    - 74% of households have a washing machine
    - 33% strongly agree with the statement….
    - 72% expressed a “like”
    - 64% claimed they would buy….
    - 68% had seen advertising for….

- **Large samples**
- **Pre-determined, structured questionnaire**
- **“Question” rather than “respondent” orientated**
Quantitative Research

- **Different ways of collecting data…**
  - By asking questions
    - Face to face (in home, in street, in central location, in situ…)
    - Telephone
    - Postal
    - Computer
  - By observing
    - By person
    - By diaries
    - By instruments
  - **WHAT** people think and **WHY** must be determined by asking questions.
Quantitative Research - some pros and cons of different data collection methods

• Street interviews
  – Pros
    • Fine for very short, structured interviews
    • Good for finding a general sample
  – Cons
    • Not good for longer interviews or those involving too much stimulus material
    • Sometimes difficult to find the sub-groups you are interested in
    • Not very practical for lots of open ended questions
Quantitative Research - some pros and cons of different data collection methods

• Telephone
  – Pros
    • Very economic
    • Relatively fast
    • Good to reach difficult samples e.g. company executives.
    • Central control and supervision
  – Cons
    • Not everyone has a telephone - varies around the world
    • Difficult to show stimulus material - unless sent through post previously
    • Interview length limited
    • Increasing number of ex-directory / solus mobile usage
Quantitative Research - some pros and cons of different data collection methods

• Postal
  – Pros
    • Generally inexpensive
    • Can have quite a long questionnaire
    • Respondents can take their time to consider their responses
  – Cons
    • Generally response rates are very poor
    • Samples unlikely to be representative
Quantitative Research - some pros and cons of different data collection methods

- Central location
  - Pros
    - Generally better environments for interview (not rushed, respondent can sit down)
    - Face to face
    - Able to show a great deal of stimulus material
    - Longer questionnaire
    - Able to “search” for “correct” sample of respondents - or pre-recruit
  - Cons
    - More expensive
    - More time consuming
    - Not a realistic environment
Quantitative Research - some pros and cons of different data collection methods

- **In home**
  - **Pros**
    - Generally better environments for interview (not rushed, respondent can sit down)
    - Face to face
    - Able to show a great deal of stimulus material
    - Longer questionnaire
    - Able to “search” for “correct” sample of respondents - or pre-recruit
    - Realistic environment
  - **Cons**
    - More expensive
    - More time consuming
    - People becoming more wary about letting strangers into their homes
Quantitative Research - some pros and cons of different data collection methods

- **Internet**
  - **Pros**
    - Economical and quick
    - Large samples
    - Minimum hassle “all in one” software
    - Can target respondents
    - Can show visual material
  
  - **Cons**
    - Penetration of internet usage
    - Low response rate unless incentivised
    - Need to keep questionnaire short
    - Availability of e-mail addresses
  
  - But this method is growing significantly
Sampling - or how do we decide who we are going to talk to?

- Sampling is an essential ingredient of Market Research - it is the part which lays down the selection of individuals who will be asked to supply the required information.

- Various methods, but the method used would be the most effective and efficient for the assemble of the data required.

- The sample should be large enough to give statistically significance to the results obtained for the smallest group required for examination.

- A good “rule of thumb” is to work on the principle of a minimum of 100 respondents per sub group you want to analyse.
Example

Men

Young

Users

Non user

100

Older

Users

Non user

100

Women

Young

Users

Non user

100

Older

Users

Non user

100

--- sample size of 800 required

Contact: Info@Rogers-International.com  tel 01296 680374
Sampling - Random Sampling

• Every item in the universe to be surveyed is given a single and equal chance of being selected with every unit of the universe being included
  – **Pros**
    • No advance knowledge of any characteristic of the universe is required
    • Sampling biases can be pre-determined
    • Small minorities in the universe can be represented with the correct size of the total sample
  – **Cons**
    • Universe to be sampled must be unique
    • Mistakes are easy to make - difficult to detect
    • Geographic spreads of the “pure” random sample can be extremely wide, with resultant contact difficulties and expense
Sampling - Quota sampling

- A quota sample is one in which the known proportions of major characteristics as they appear in the universe are deliberately made to appear e.g. housewives, certain age groups, people who have decorated within the last 12 months....

  - **Pros**
    - No essential sub group can be accidentally omitted
    - Interviewer biases can be minimised by more exact instructions
    - Greater geographical concentration is possible
    - Sample errors are no greater than for a random sample

  - **Cons**
    - Detailed data about characteristic proportions in the universe is necessary
    - Interviewer dishonesty in informant description is not easy to detect
    - Minority sub groups may be over weighted by chance
Sampling - Which type to use?

- No right or wrong answer - but generally speaking….
  - **Random sampling** is principally used when you want a broad picture or have little knowledge about the area or target group being investigated
  - **Quota sampling** is used when you know who you want to talk to and that you are not wasting money talking to the wrong people
Quantification - Some health warnings (1)

- Measurement is important - quantification is necessary to understand the basic structures of markets. But the need to measure accurately shouldn’t be confused with the need to measure the right thing.

- Some things need to be measured accurately to 3 decimal places - e.g. the dimensions of surgical instruments. That degree of precision is rarely required in marketing.
  - E.g share information derived from imports, interest in buying..

- Don’t be more interested in the measuring instrument than the data being measured. Clumsy questions, wrong questions, inadequate or inappropriate samples will after all produce just as much data as good questions and good samples

- Don’t ascribe greater value and importance to data than can be measured.
Quantification - Some health warnings (2)

- Other limitations:-
  - For ad-hoc work, a sample size of 500 respondents may sound like a large sample - however, bear in mind in Brazil for example, that this represents 0.003% of the total population.
  - Retail audits - don’t assume you have a total universe - or a sample of the total universe. Are the large multiples included only? (e.g. Poland). Is the sample only multiples with no independents? Is the geographic coverage accurate etc.
  - Be especially careful with pre-published information
    - How was it collected?
    - Who or what does it include?
    - Was it a properly structured market research sample?
    - Do they reveal what the actual questions were?