

## MULTIPLE CHOICE QUESTIONS

For each question below, please circle a statement if and only if is TRUE! The amount of correct statements can be 1-4 for each question.

### 1. Which is an advantage of using an Internet-based research method compared to traditional methods?

- a) Data can normally be collected and analyzed very quickly
- b) The response rate normally is high
- c) The confidentiality issue is solved
- d) It is a very cheap method for larger studies

### 2. Important advantages with patents as indicators include

- a) Patents contain publicly available information
- b) Most inventions can be found
- c) The ability to compare innovative success across all industries
- d) Patents include all the necessary information to replicate the invention

### 3. Problems with focus group include...

- a) The data are difficult to analyze
- b) They are difficult to organize
- c) The researcher has little control over proceedings
- d) The Hawthorne effect

### 4. An interviewer who does semi-structured interviews should

- a) Put words in the respondent's mouth
- b) Avoid negative formulations such as "not" or "stupid"
- c) Be very enthusiastic to encourage the respondent
- d) Should not say what the research is about

## 5. Research questions...

- a) Are defined prior to the literature review
- b) Are defined by interview questions
- c) Should be broad to be able to find out as much as possible.
- d) Are characterised by being answerable by a proper research design

## 6. A theory...

- a) Is characterized by thick descriptions
- b) Must have relations among concepts (propositions)
- c) Must relate to any type of object of study (phenomenon)
- d) Specifies the limits of its applicability (domain )

## 7. Generalization

- a) Can be readily made to populations outside from which the samples were drawn as long as proper statistics are used
- b) Can be based on theoretical findings based on case studies
- c) Requires a high internal validity
- d) Requires a high external validity

## 8. Quantitative research

- a) Often make use of statistical tools
- b) Tend to have distinct data collection and data analysis phases
- c) Is normally based on grounded theory
- d) Can be used in practically-oriented research

## 9. Sampling

- a) A convenience sample is a sample that is available to the researcher by virtue of its accessibility
- b) The population is the universe of units from which the sample is to be selected.
- c) A non-sampling error arises either from deficiencies in the sampling approach, such as inadequate sampling frame, or from problems such as poor question wording, poor interviewing, or flawed processing of data.
- d) A sampling error is the difference between a sample and the relevant population, even though a probability sample has been selected.

## 10. Key aspects of a survey include

- a) Convincing respondents to cooperate
- b) A rejection of the null hypothesis
- c) Using a cross-sectional design
- d) High construct validity

### Question 1 (20 points)

You are to set up and run an innovation audit in a multinational corporation. Outline and explain your main criteria that you will apply during the audit and why. Explain what your audit will entail and why, and in what order you will run various activities and why. Explain why it will be relevant for your clients.

Finally, please explain what the ethical challenges are (likely to be) and how you will deal with them.

### Question 2 (20 points)

A current controversy among practitioners and researchers is the organization of emergency clinics in hospitals. To minimize total spending per patient (while making sure that the patient care is of high quality) a key issue is how to optimize in relation to load factors or to optimize the organization the throughput. The former means organizing so that resources are used to as high degree as possible. For example, it is important to make sure that there is as little slack time for nurses and doctors as possible. The latter means to make sure that the system has as high a throughput as possible to keep the time the patients spend in the emergency care as low as possible. Unfortunately, there is a tradeoff between the two, and one needs to be prioritized above the other.

A professor is tired of the arguments back and forth. He has realized that the discussion is based on lots of contentions, theories and analyses but very little data. He has “ordered” you

to empirically investigate the issue to decide who is right once and for all. You have been given a huge budget allowing you to work full time and at times bring in specialists as well. You need to finalize your investigation within three years.

How would you design your investigation? What are the pros and cons with your setup?

### **Question 3 (10 points)**

What characterizes good case studies? Why? Make sure to explicitly refer to the role and the differences and similarities of Miles (1979) and Jick (1979) in your answer.

### **Question 4: What are the choices? (15 points)**

You have been employed by a very prestigious management consulting company (MCC). A client to MCC wants to know whether or not there are upcoming technological disruptions in their industry within the next 2-3 years. Of course, the client is much aware that it is not just new technologies that are important but also the way users or buyers behave. Thus, they want to know about changes in behavior and changes in technologies.

The client is very much aware that this is a difficult undertaking and hence they want to have a say in how MCC proceeds with their work.

Your task is to make sure that the client is convinced that MCC is competent and that MCC is not perceived as overselling expected deliverables.

More precisely, your first task is to give a 10 minute presentation to the client describing different research and data analysis methods. They want to hear explanations dealing with the pros and cons of the methods *in relation to identifying potential technological and behavioral disruptions*. As time is precious and the client does not want a detailed lecture, make sure to organize your presentation so that the methods readily can be compared and make sense in relation to analyzing upcoming technological disruptions.

You have been asked to present at least *seven* of the following approaches: bibliometrics, technology indicators, structured interviews, think aloud protocol, structured observation, questionnaires, content analysis, focus groups, KJ Shiba, and metadata on the Internet.

First, please show your slides\*\* if any, (maximum 4). Second, add what you intend to say, beyond what you show on your slides. Make sure that you answer which of the presented methods are useful and why. Third, you are also to outline your entire expected research process.

Note that your selection needs to be realistic; you have five months to complete your investigation. During this period of time, one senior consultant will work on this half a day per week while you will spend your entire time on this task.

Feel free to illustrate your study by choosing the industry of the client.

\*\*Do not spend unnecessary time polishing slides!