Formulating research problems

MBA 8109: Research Methods
MBA Modular
What is a research problem?

• A research problem, refers to some difficulty which a researcher identifies in the context of either a theoretical or practical situation and wants to obtain a solution/explanation for the same.

• It is the demarcation of a problem within a certain context involving the WHO or WHAT, the WHERE, the WHEN and the WHY of a problem situation.
What is a research problem?

• Identifying a problem is an important but difficult aspect of the research process.

• The **formulating and clarifying process** is time consuming but time well spent in order to conduct successful research.

• A clear problem enables you to choose the most appropriate research strategy, data collection and analysis techniques.
Finding a research problem

1. Current events
2. Suggestions from past studies
3. Suggestions from research by authorities in your field
4. Theories and concepts with little empirical research in your field
5. Testing important results
Steps in problem formulation

• Identify a broad area of study e.g. ICT, Marketing.
• Dissect the broad area into sub-areas
• Select a research topic within the sub-area
• Formulate the research objectives
• Write research questions
A research topic falls within an area (subject) of study. Example:

- Research Area: E-Commerce
- Research Topic:
  - Internet marketing behavior of global companies
  - Factors determining adoption of e-commerce among the domestic companies in Kenya
  - Cost Benefit Analysis of e-commerce with reference to flight ticketing sales for Kenya Airways.
Choosing a research topic

- Interesting to you
- Achievable within available time frame
- Topical issue
- Achievable within available finances
- Certainty of access to data

Source: Saunders et al. (2012)

- Fits within SBS specifications and standards
- Clear link to theory
- Ability to provide fresh insights
- Symmetrical outcomes
- Fits within your career goals
The Goldilocks test

• Too **big**: assess the impact of Public Procurement processes since inception.
• Too **small**: analyse critical success factors for an organization.
• Too **hot**: politically sensitive or involving ethical dilemmas e.g. corruption in govt.
• **Just right**: your ticket to graduation!
Research area and topic

• **READ AROUND THE AREA** (SUBJECT) to know the background and to identify unanswered questions or controversies, and/or to identify the most significant issues for further exploration.
Developing your research problem

Keep the following in mind:

• Outline the general context of the problem
• Highlight key theories, concepts and ideas current in this area.
• What appear to be some of the underlying assumptions of this area?
• Why are the issues identified important?
• What needs to be solved?
Components of the Problem

1. There must be an individual or a group which is facing the difficulty/problem. It could be a person, organization, sector etc.

2. There must be some objective(s) to be attained (e.g., to identify, to examine, to critique, to compare).
Components of the Problem

3. There must be alternative options for obtaining the objective(s) one wishes to attain. At least 2 options should be available to the researcher.

Example: To examine why people pay taxes is not a problem because the people have no choice. However, one can examine tax compliance.
Components of the Problem

4. There must remain some doubt in the mind of the researcher with regard to the selection of alternatives. The research question must address the relative efficiency of the possible alternatives, i.e. *if the answer is known, there is no problem.*

5. There must be some environment(s) to which the difficulty pertains.
Context of the Problem

• Several factors need to be considered:
  
  (i) The environment may change affecting the efficiency or value of the outcome, e.g. change in regulation.

  (ii) The number of alternative options may be very large, e.g., in finding out why firms are successful, many reasons exist.

  (iii) Demographic factors (age, gender, education or income levels) may affect the outcomes of the research problem.
iv. Some phenomena may be “moving targets” making them hard to measure.

All such elements need to be considered in finding the optimal solution to the research problem.
A good business research problem should be:

• Explicit – distinct and testable.
• Clear – relationships between concepts should be clearly explained.
• Original – say something new, innovative, interesting.
• Have managerial relevance and/or theoretical significance.
Research problems should be **SMART**

- **Specific** – clear and explicit on what is to be done, also mentions what the study is not about.
- **Measurable** – concepts/variables are clearly defined and can be measured.
- **Achievable** – within the constraints of time, funding and availability of data.
- **Realistic** – within your range of competence.
- **Time-bound** – timeframe clearly defined.
Research sub-problems

• The sub-problems are stated as research objectives.
• Each sub-problem should be a completely researchable unit.
• Each sub-problem must be clearly tied to the interpretation of the data.
• The sub-problems must add up to the totality of the problem.

Sub-problems should be small in number (3 – 5).
Research sub-problems

• Since the sub-problems are the research objectives, they should be stated using verbs, e.g., to analyse, to compare, to examine, to assess, to identify.

• The verbs also make your research measurable and easier to assess. The research output is assessed in the ability to address each of the research objectives.
Criteria for research objectives

• Are they clear and unambiguous?
• Do they outline the steps required to achieve the overall objective?
• Are they interconnected? Do they form a coherent whole?
• Are they achievable?
• Are the intended outcomes evident?
Stating research questions

- Research hypotheses or questions originate from sub-problems. Each sub-problem may have one or more research questions or hypothesis.
- They act as the basis against which data are collected and analysed, as the analysis must lead to answering the questions or testing the hypothesis.
Scope of the research

• The scope of the study refers to the physical limitations of the study: where will your study be conducted?

• The basis for such delimitations should be stated.
  – E.g. This study will only focus on listed companies because....
  – This study is limited to SMEs in Nairobi...
Stating Assumptions

• Assumptions that have material bearing to the problem should be openly presented (*however, this is not applicable to all studies*).

• To discover your assumptions, ask yourself: What am I taking for granted with respect to the problem?
  – E.g. that all the data collected by KRA used for this research is accurate.
Significance of the research

• The significance of the study is different from the rationale of the study. It highlights why the study is important and for whom. It answers the SO WHAT? Question.

• Questions to ask yourself:
  – Of what use is your research?
  – What practical/managerial value does it have?
  – Who will benefit from the findings of your study and how?
Structure of Chapter 1

1. Background to the study: setting the stage – what is known about the subject of study? Citing sources of literature is required.

2. Problem statement – what research gaps exist from literature? Are they relevant (do they address a practical/managerial problem?)
Structure of Chapter 1

3. Research objectives: 3 – 5 objectives that together address the research problem identified.

4. Research questions/hypothesis – each objective must have corresponding question(s) or hypothesis.

5. Scope of the study – what your study is about and what it is not about.
Structure of Chapter 1

6. Assumptions of the Study (if relevant)
7. Significance of the study – why is the study important and for whom.
Tips to keep going

• START WRITING AND KEEP WRITING!
• Do not be discouraged.
• Share your ideas with peers/supervisor
• Quantity first, quality later
• Refine and update continuously
• Your enemies are procrastination and perfectionism
• Silence your critical voice
Guiding questions

1. What is your proposed research topic?
2. What research objectives & questions are suggested by your research topic?
3. To what literature does your research topic relate?
4. What are the key dependent and independent variables in your proposed study?
5. What possible relationships may exist between these variables and why would these be important to explore?