

Problem Statement

What is a problem statement?

A problem statement is the description of an issue currently existing which needs to be addressed. It provides the context for the research study and generates the questions which the research aims to answer. The statement of the problem is the focal point of any research. A good problem statement is just one sentence (with several paragraphs of elaboration). The paragraphs could cover present persuasive arguments that make the problem important enough to study. They could include the opinions of others (politicians, futurists, other professionals); explanations of how the problem relates to business, social or political trends via presentation of data that demonstrates the scope and depth of the problem.

A well articulated statement of the problem establishes the foundation for everything to follow in the proposal and will render less problematic most of the conceptual, theoretical and methodological obstacles typically encountered during the process of proposal development. This means that, in subsequent sections of the proposal, there should be no surprises, such as categories, questions, variables or data sources that come out of nowhere: if it can't be found in the problem section, at least at the implicit level, then it either does not belong in the study or the problem statement needs to be re-written.

Problem statement should be confined in 1 page but if there is a need to increase pages then it must not be more than 3 pages. Problem statement contains following components:

- **What is Problem:** First thing to mention in problem statement is to describe the problem clearly.
- **Where it happened:** After mentioning the problem, there is also a need to identify and describe the place where problem happened in a society or in an object.
- **When it occurred:** Time of problem is also an essential thing. For writing problem statement, it is necessary to indicate when problem occurred. At this stage not only time but circumstance, environment, etc. are also important factors which should be discussed. If there are some specific factors whose appearance or existence may cause the problem that also must present there.
- **To what extent:** Problem statement is considered as most important part of the study. It is considered as base of the study which should be written properly and clearly. So it must be written with full of its extent and intensity that reveal study must be conducted on this problem.
- **How I know:** At this point there is a need to mention how you know about the problem and extent of the problem, present references there.
- **Conceptual Framework:** Present conceptual framework which you assumed in the light of above discussed problem. Also explain construct and variables and their relationships.
- **Gap:** Gap of the study is an essence of problem statement. So showing gap at this stage is very important. Gap will show how your conceptual framework is unique and researchable.
- **Evidence/Logic:** What is the need to conduct this study? Provide logics and also support from literature regarding the need of the study.

- **Consequences:** What will happen if you don't conduct the study? In short at this stage explain the need of study.
- **Purpose:** Write purpose of the study and also mention about methodology of the current study.

Components of problem statement?

Problem statements often have three elements:

1. The problem itself, stated clearly and with enough contextual detail to establish why it is important.
2. The method of solving the problem, often stated as a claim or a working thesis.
3. The purpose, statement of objective and scope of the project being proposed.

These elements should be brief so that the reader does not get lost. One page is enough for a statement problem.

Criteria for Research Problem Statements:

- The statement of the problem should clearly indicate what is to be investigated.
- The actual statement may be in a declarative or in a question form.
- The statement should indicate the variables of interest and the specific relationship between the variables that are to be studied.
- Please note: In some qualitative methodologies, a statement of variables will not be possible and should not be done. However, an explanation of the qualitative methodology and the parameters of the research methodology should be explained.

Sources of problem statement?

Common sources of research problems are:

- Personal experience and interests of researchers.
- Various theories in the discipline of the researcher.
- Related Literature- Literature from one's own area of interest.
- A reproduction of past research studies.

Writing problem statement?

1. First select your research topic, which is the issue or subject area that you intend to investigate.
2. Describe the business or management problem based on your topic that you intend to research. Do this right at the beginning of your research proposal or report as laid out in the templates (remember to reference any facts that you are basing your research on). This will set the scene for your Research Problem statement, so that you can write a clear, stand alone Research Problem.
3. A Research Problem is not the same as a business problem, ie it is not a "problem" in the normal sense of the word; it is research jargon that happens to be a bit confusing. You can think of your Research Problem as the unknown part of your business problem.

4. We prefer Research Problem statements to have an outcomes based verb at or near the beginning. Some good outcome based verbs are:

Identify	define	relate	describe	review	justify	indicate
formulate	explain	compare	contrast	suggest	interpret	analyse
assess	construct	apply	demonstrate	illustrate	categorise	deduce
create	resolve	debate	propose	differentiate	construct	argue
derive	design	evaluate	establish	conceptualise	suggest	integrate
compile	develop	challenge	consolidate	clarify	criticise	formulate
ascertain	appraise	calculate	recommend			

5. Verbs such as “understand”, “explore”, “investigate”, “examine” and “discuss” are poor verbs as they describe processes, not outcomes, eg you can discuss something endlessly without ever having to make recommendations, draw conclusions or offer a result. You might be exploring, examining or discussing as part of your process, but they cannot be the end result of your research, which should be more tangible.
6. If your Research Problem contains two or more concepts / ideas, then break it down into sub-problems, so that each sub-problem consists of one idea only. Each sub-problem should contain key words that you can use in your literature search (using the electronic library databases and Google Scholar) on that sub-problem.
7. Your Research Problem statement should be your sub-problems added together – no more and no less. Do not introduce any new ideas when you write your sub-problems. For example:

The Main problem is to

Analyse and evaluate the role of entrepreneurship in the establishment of small, medium and micro enterprises (SMMEs) and ascertain the value of the economic contributions of these firms in emerging markets.

Sub-problem 1

Analyse and evaluate the role of entrepreneurship in establishing SMMEs in emerging markets. (Here your key search terms for your literature review could be “entrepreneurship”, “SMME” and “emerging markets”)

Sub-problem 2

Evaluate the economic contribution of SMMEs to growth and development in emerging markets. (Here your search terms could be “economic contribution”, “economic growth”, “emerging market development”)

Your literature review would be likely to have headings similar or related to the search terms, as well as other topic areas that you find and are relevant, but that you may not have anticipated – in fact you will find a lot of information and related topics that you won't (and cannot be expected to) have anticipated. Use the search terms both alone and combined with each other. You won't find many articles on exactly your own research problem (that's why you are researching it), so your literature review will be on topics broader than, but encompassing your specific problem.

8. Your sub-problems should NOT be steps in the process of finding the solution to your Research Problem. This is a common and understandable error. The example below shows the sub-problems to be steps in the process that the student intends to follow in the research (these can be described in the methodology chapter). They are not invalid - they are just not sub-problems.

Main Problem

Compare the characteristics of the South African and Ghanaian home loan markets in relation to consumer home loan choice criteria, home finance availability on both markets, home loan administration, success and hindering factors, risks in pricing of home finance, the status and causes of home loan default in both markets and to predict the way forward for both markets.

Sub-problems

- Analyse consumer choice criteria in both home loans markets
- Assess the availability and accessibility of home loans.
- Establish the difficulties encountered in home loan administration
- Identify the risks in home loan pricing and the effect of inflation on pricing
- Determine the status and causes of home loan default
- Forecast the future of the South African and Ghanaian home loan markets.

In the example, the “sub-problems” listed are certainly useful topics to include in the literature review, although the list may not be exhaustive - keep an open mind to finding other factors in the literature that you may not have thought about. The literature review is a process of discovery, and you don't know what's been published until you get there.

A possible alternative to the above could be:

Main Problem:

Compare the actual and perceived characteristics of the South African and Ghanaian home loan markets and determine the nature of any relationship between these characteristics and payment defaults. Identify any other causes of home loan defaults in these markets and possible measures to reduce them.

Sub-problem 1

Identify the actual and perceived characteristics of the South African and Ghanaian home loan markets.

Sub-problem 2

Determine the causes of home loan defaults, whether they are related or not to the home loan market characteristics and seek measures to reduce the occurrence of such defaults.

9. Your problem and sub-problems should not have a yes / no answer or solution.
10. Your problem and sub-problems should not suggest the solution / finding that you expect, otherwise you are introducing bias.
11. Not all problems have sub-problems; if your problem statement contains only one concept or idea, and cannot be broken down into smaller concepts, you will have only a problem statement with no sub-problems.
12. A sub-problem should not depend on a particular answer to a previous sub-problem – you will be in trouble if it does not work out the way you anticipated. To avoid this, make sure that each sub-problem can stand alone, ie it could be a small research project by itself, such as in the example in point 8 of this document.
13. You should only have a small number of sub-problems – no more than 2 to 3 preferably. If you have too many, your project may be too big. In this case, exclude some of the investigation and state what you will NOT be including in your research under the heading “Delimitations”.
14. Your sub-problems with their key words are your guide as to what to look up in the literature to see what has already been published on your topic. Your literature review is based on one sub-problem at a time. Thus your sub-problems will keep you on track – but they may be tweaked from time to time as you read more and more – it is an iterative process.

The problem statement implies some question that your research will be answering. Sometimes it is necessary to draft or pre-write for a while to discover what that point will be (and often writers are unsure of their point until they have written the draft proposal and discover the point near the end of the proposal).

When you set up to write a statement problem you should know that you are looking for something wrong... or something that needs close attention. Your problem statement is the statement that makes a point about the issues and information you are discussing, and is what the rest of the proposal hinges upon. It is not just your topic, but what you are saying about your topic. In other words there must be very good communication between your topic and the statement problem.

The importance of the problem should receive considerable and persuasive attention [note that importance is inevitably subjective and will vary from researcher to researcher]. Nevertheless objectivity can be injected by answering questions such as these:

1. Is the problem of current interest? Is it topical?
2. Is the problem likely to continue into the future?
3. Will more information about the problem have practical application?
4. Will more information about the problem have theoretical importance?
5. How large is the population affected by the problem?
6. How important, influential, or popular is this population?
7. Would this study substantially revise or extend existing knowledge?
8. Would this study create or improve an instrument of some utility?
9. Would research findings lead to some useful change in best practice?
10. Is there evidence or authoritative opinion from others to support the need for this research?

The problem statement should persuasively indicate that major variables can be measured in some meaningful way. If you can identify likely objections to the study, identify and respond to them here. The problem statement could close with a question. Typically, the question could contain two variables, a measurable relationship, and some indication of population. The purpose of the literature review that follows thereafter is to answer the research problem question. If the literature cannot answer the question, the research is needed to do so. An example question might be: this proposal poses the question, "What is the relationship between farm productivity and farmer use of fertilizer"? The information needed is (1) productivity levels and (2) some measure of fertilizer use. A bad example might be: "What is the best way to train for use of fertilizer"? This is insufficient because:

- What are the variables?
- What will be measured?
- What relationships will be examined?

There should be a close relationship between the title of the proposal and the problem statement question. For example, in the good example above, the title of this research project would be something like this: "Fertilizer use by small scale farmers in Bungoma district and their farm productivity" (see annexures 1, 2, 3, 4 & 5).

Annexure 1

Establishing a research problem can be a challenging yet rewarding process. Careful selection of the research problem defines the work of the project and provides a direction for the entire process. Establishing your research problem usually consists of distinct phases:

Research topic>research problem>problem statement>research design>research proposal

STEPS	EXAMPLE	STRATEGIES/SOURCES
Select a <i>broad</i> area of interest—a research <i>topic</i>	Costs of farming	Personal interest Readings Conversations with farmers etc
To move from topic to a manageable research problem, ask questions about the topic such as "who / what / where / when why / how?"	What are the issues in the costs of farming? What is being done to control costs of farming? What factors are responsible for price increases? How effective are institutions in controlling farming costs?	Read abstracts of literature for overview, make observations,
Select one narrowly defined <i>problem</i> Ask relevant questions that will help answer the problem	Are government agriculture inputs price policies effective? Does the level of training by farmers affect cost of farming? What is the role of agricultural institutions?	Read several articles on the narrower focus; note possible methodologies that might be used in your project
Write a problem statement consisting of several sentences that briefly frame the issues to be investigated, indicate the significance of the question, and includes a <i>declaration of what you will do</i>	Farming costs are escalating. Farmers are unable to buy inputs. Many people have proposed pro-farmer policies. Among the potential solutions are price subsidies. Questions exist regarding the impact of price subsidies. "In this project I will..." or "This study will..."	Incorporate readings-to-date to determine this working statement. Of course, as your work progresses, you may need to modify this problem statement.
Select possible research design	Research designs will depend upon the discipline and actual statement of problem. It should be developed in consultation with your supervisor.	Read more focused and specialized articles on content, design and methodologies
Prepare a research proposal	After literature review, methodology selection, etc. write the complete research proposal.	

SIMPLE STATEMENT PROBLEM TEMPLATE

Annexure 2

This template should help you to draft your first problem statement

Stable Context

Describe unchanging facts about the topic/problem.

For many years, people have debated about _____.

Or

_____ has been controversial because

_____.

Or

_____ has dominated discussions of

_____.

Status Quo

State common but incorrect or incomplete assumptions

Many people think

_____.

Or

At first glance, it may seem like

_____.

Destabilizing Moment

Describe something that reveals the status quo assumptions to be incomplete or inaccurate.

This initial perception fails to take into account

_____.

Or

This theory can't explain

_____.

Or

People have failed to notice, however,

_____.

Consequences

Show readers why they should care: what bad things will happen if people continue to believe the status quo? What good things will happen once they stop believing it?

If we continue to believe _____, we'll never understand the larger question of

_____.

Or

Unless we change _____, we will continue to have trouble with

_____.

Or

Once we understand _____, we'll begin to see the answer to the problem

_____.

Or

By rethinking our approach to _____, we can fix

_____.

Resolution

Provide a better theory/explanation to replace the status quo. State your claim.

_____.

_____.

Annexure 3

ONE MORE TEMPLATE FOR WRITING A STATEMENT PROBLEM

PROBLEM STATEMENT 4 required parts
1. Start with a general problem identifying the need for the study. E.g. The problem of this study is _____
2. State the specific problem proposed for research. (use citation & usually a number to make it clear to the reader, e.g. 30% of the farms have been affected by the Napier grass disease
3. Introductory words describing Methodological approach (i.e. Research Design) are given and are appropriate to the specific proposal problem, e.g. this qualitative study will explore... or this quantitative study will examine ...
4. General population group of proposed study is identified. Small scale farmers in affected locations will be surveyed to determine ...

Annexure 4

A qualitative problem statement

Brain drain in Kenya is increasing (**GENERAL PROBLEM**). Every year about 50 professionals migrate abroad due to unsatisfactory working conditions (**SPECIFIC PROBLEM WITH NUMBERS and supported with a citation**). This brain drain is different from previous shortages, because it involves not only fresh graduates but also seasoned professionals (quote).

This crisis in the professionals' industry requires innovative solutions. One innovative solution may be a less structured leadership style, such as steward leadership (quote). This qualitative case study (**DESCRIPTION OF STUDY TYPE**) will explore perceptions of professionals in Kenya (**POPULATION BEING STUDIED**) about steward leadership as a strategy to alleviate or reduce factors contributing to the brain drain among professionals in the lake basin region (**GEOGRAPHICAL LOCATION OF STUDY**) The data to be gathered in this study may provide leaders with information relating to how they may address or mitigate factors contributing to the current brain drain.

Annexure 5

A quantitative Statement of the Problem: an American example

Identity fraud is one of the fastest growing crimes in America (Adams, 2002). In 2003, at least 7 million Americans were victims of identity fraud, an increase of 79% from 2002 (AFP, 2003). **GENERAL**

PROBLEM SUPPORTED BY LITERATURE The nation's system of personal identification and verification failed to stop the 9/11 terrorists, and according to the *9/11 Investigations* report (Strasser, 2004), some of the 19 hijackers of the 9/11 attacks had fraudulent identification, passports, and other travel documents (Wang, 2004). **Seven of the 19 hijackers fraudulently obtained** and used drivers' licenses as

identification to board commercial aircraft (*Driver's License Fraud*, 2003).

Drivers licenses can still be obtained or made fraudulently and are still used as a de facto form of national identification (Etzioni, 2004).

Specific problem with citation The *9/11 Commission Report* (9/11 Commission, 2004) recommended using an NBIC system as a more reliable and secure means of fighting terrorism. One associated problem of the 9/11 Commission's recommendation is that various civil liberty advocates oppose the use of a compulsory NBIC, arguing that compulsory use of NBICs may have a potential to deprive citizens of their civil rights and invade individual privacy (Eaton, 2003).

The purpose of this research study will be to examine the motivational factors necessary for the public to use voluntary NBICs as a more reliable and secure means of preventing identity fraud. To fulfill this purpose, **a quantitative** **TYPE OF STUDY** research study will survey students, faculty, administrative personnel, and employees of two community colleges in **Los Angeles County, California**.

GEOGRAPHICAL LOCATION