

# Research Problems in Management Sciences: An Expository Approach

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## ABSTRACT

The importance of the research problem cannot be over emphasised, as the success of a study is dependent on the identification of an appropriate problem. One of the most difficult tasks for a researcher is identifying a researchable problem to study. This study explored the identification of research problem in management sciences research. The study adopted an exploratory research design. Further, an evaluation of the types, sources, and procedure for formulating research problem as well as research problem statement in the field of management sciences was carried out. The study revealed three types of research problems: exploratory, causal, and relational research problems; three major sources of research problems: empirical, theoretical, and conceptual deductions; a model of research problem conceptualisation; and appropriate ways of writing problem statements in management sciences. The study concluded that identifying and conceptualising research problems as well as developing problem statements is an essential part of the research process, which must be done appropriately. The study suggested that researchers use the model to identify and formulate an appropriate research problem prior to conducting a study, because the research problem is the bedrock of all research.

**Key words:** Identification, Management Sciences, Methodologies, Problem Statement, and Research Problem.

## INTRODUCTION

The first step in the scientific research method, according to Kebritchi (2017) is the recognition of a felt difficulty, an obstacle, or a problem that perplexes the researcher. A situation becomes a problem when it affects a single person, a group of people, or a community as a whole. A problem is defined as an issue that appears to necessitate interpretation and as matter that require change in order to be resolved (Jonker & Pennink, 2010). The first and most important step in management sciences research is the identification of research problems, without which no research can be conducted. It is like knowing where one is going before embarking on a journey (Walia & Chetty, 2020). It forms the basis for the entire research process. It is also similar to the foundation of a future building, and developing a plan of a building is a difficult task. Similarly, identifying different research problems is a difficult task (Shoket, 2014). The fuel that propels the entire scientific research process is research problems. As a result, in contemporary management sciences research, problem identification is of the utmost importance for the researcher before the research is conducted (Simmi, Tanu, & John, 2019).

When a problem is effectively identified and formulated, subsequent research efforts are facilitated (Shoket, 2014). Problem identification and formulation involves the researcher psychologically, induces restlessness, and piques his/her interest in finding a solution to the problem. Problems do not occur in a vacuum; rather, they are context dependent (Bryman, 2007). According to Simmi, et al. (2019) the fundamental component of an excellent research is an explicitly stated research problem that is essential in revealing natural

mysteries. The research problem defines the problem to be investigated and guides the methodology. It results in the development of an appropriate research objective, research question, and research hypothesis. As a result, the research problem is aimed at investigating an existing ambiguity regarding a particular area of concern and demonstrates the need for deliberate investigation. A good research problem helps to develop a focused arguable thesis and the construction of a logical argument (Hashimi, 2015).

Management sciences is a broad multidisciplinary study of problem solving and decision making in human organisations, with solid links to economics, business, management consulting, engineering, and other fields (Paavo, Sabrina & Snejina, 2020). It uses a variety of scientific research-based strategies, principles, and analytical methods, such as numerical algorithms, mathematical modelling, and statistics to enhance an organisation's capacity for making logical and accurate management decisions by arriving at optimal or near-optimum answers to complex issues (Ellis & Yair, 2018). Management science research helps businesses achieve their goals by utilising various scientific methods (Bracio & Szarucki, 2020).

Thus, identifying and developing a compelling problem statement is critical in management science research because it functions as a communication tool and is critical in the context of research with the objective of enhancing individuals, groups, and companies, (Ellis & Yair, 2018). The most important goal of the problem statement is to precisely and clearly define the issue under discussion. Maintaining focus and keeping the research on track. It is revised at the conclusion of the research to make sure that the solution chosen addresses the problem (Hashimi, 2015).

The aim of this study is to shed more light on the identification of research problems in management sciences. Therefore, the purpose of this paper is to review the current state of affairs and present some guiding considerations in the identification of research problems in management sciences.

## **STATEMENT OF THE PROBLEM**

The significance of the research problem cannot be overstated, as the success of a study depends on identifying a suitable problem (Fischler, 2019). One of the most challenging tasks for a researcher is to identify a research problem to study (Fischler, 2019). It calls for a significant amount of thought, searching, and speculation on the part of the researcher. In addition, it calls for a substantial amount of effort, time, and energy (Miles, 2019). A novice researcher will typically struggle to determine how to locate the problem situation (Miles, 2019). A poor problem identification and formulation may fail to keep researchers interested in the study and may land the researcher in unanticipated difficulties later on (Alvesson & Sandberg, 2011). According to Nixon (2019), identifying and formulating a research problem can sometimes be more challenging than resolving it.

This challenge could be attributed to the researchers being unable to identify relevant research problems without duplicating and repeating prior research, rather than a lack of researchable problems (Simmi, Tanu, & John, 2019). This inability may occur because the researcher lacks in-depth knowledge of the research process. The researcher may not be familiar with the areas for research as well as the procedures that must be complied with in order to identify a suitable area of research (Oyediran, 2019). New researchers have an unattainable, thereby unrealistic view of the research problem. Even an experienced researcher finds it challenging to list all of the problems that require investigation (Alvesson & Sandberg, 2013). Further, even after identifying the research problem, some researchers struggle to come up with a suitable problem statement (Fischler, 2019).

However, it is clear that the importance of identifying and formulating a research problem has been formalised in academic circles. Studies have been carried out on this topic such as, Oyediran (2019), Alvesson and Sandberg (2011), Shoket (2014), Simmi, Tanu & John (2019), Kebritchi (2017), and Bryman (2007), among others. Surprisingly, there are limited existing studies on this topic that contains a

comprehensive discussion and presentation of the identification of research problems, as well as the proper way of writing a problem statement, particularly in management sciences research. Further, books on research methods does not appear to place enough emphasis on it. Its treatment is usually both precise and scanty.

Researchers frequently asks these questions, “How can I come up with a researchable problem?” “How do I know it is a valuable research problem that the panel will accept?” “How do I write a problem statement appropriately?” This paper is an attempt to provide answers to these questions. This study is proposed as a systematic exposition to shed more light on this subject.

### **Research Objective**

The specific objective of this study is to:

Explore research problem identification and formulation in management sciences research.

## **METHODOLOGY**

This study utilised exploratory research design and it relies on secondary data gathered from various publications, journals, textbooks, and internet sources that focused on research problem.

### **Conceptual Review**

#### **Research Problem**

Nixon (2019) asserts that organisational issues or opportunities serve as the basis for research problems. If there is a problem, it means that the organisation is not operating at its best. In other words, problems occur when there is a mismatch or gap between the current state (of an organisational procedure, system, sub-system, process, etc.) and the desired state (Nixon, 2019). When a manager identifies a problem, they want to solve it. When a researcher discovers a gap, it is classified as a research problem, which should be, addressed (Simmi, Tanu & John, 2019).

A research problem is a statement about an area of concern, a condition that needs to be improved, a difficulty that needs to be solved, or a perplexing question that exists in scholarly literature, theory, or practise and shows a requirement for significant comprehension and intentional investigation (Sanjay, 2015). The research problem, according to Bryman (2007), is the heart of a study. It is a concise, specific statement of the area of concern or investigation that is supported by evidence. It propels research questions and processes while also providing a structure to comprehend research findings (Kebritchi, 2017). The research problem is a gap in existing knowledge that the researcher desires to be filled, a problem with a well-known and well-documented process or practise requiring a solution, or some unforeseen occurrences or prior results that suggest the need for additional investigation (Oyediran, 2019). The approach can be theoretical or practical, and the type of problem addressed is determined by the type of research desired (Antony, 2022).

Researchers should not, in any case, duplicate the opinions of others previously stated, pose a question that is far too broad to be answered within the scope of their research, or be so unclear that the reader is confused of their reasons for conducting the study (Oyediran, 2019). To avoid such problems, researchers must define the research problem clearly, contextualise it, and emphasise its significance to their field of study, the larger research community, or even the general public (Antony, 2022). According to Padede (2018), defining a research problem serves three purposes: It highlights the importance of the research topic. it helps the researcher in correctly defining the parameters of the investigation by placing the problem in a specific

context. It serves as a framework for future presentations of the results.

The research problem defines how the researcher will answer the question “So what?” The question “So what?” refers to a research problem that has passed the relevancy test (reliability and accuracy of a measurement procedure). Answering the “So what?” question requires the researchers to demonstrate not only that they have researched the material, but also that they have considered its significance (Sivarkuma & Szalinski, 2016). According to Sivarkuma and Szalinski (2016), research problems for business and management research could include existing business problems for which a manager requires a solution, and situations that can be viewed as opportunities for the organisation, for which the manager may not require an immediate solution. Hence, in this study, research problem is defined as a gap between the current and desired states as well as a brief and concise statement of a challenge or question, with the goal of eliciting a solution or answer.

When analysing a problematic situation, Shoket (2014) stated that an investigator should perform the following major tasks

- i. Gathering facts that may be relevant to the problem.
- ii. Determining whether the facts are relevant.
- iii. Tracing any relationship between facts that may reveal the key difficulty.
- iv. Proposing various explanations for the source of the difficulty.
- v. Using observation and analysis, determine whether these explanations are relevant to the problem.
- vi. Tracing the relationship between explanations that may provide insight into the problem.

### **Types of Research Problem**

There are three types of research problems: Exploratory (relates to issues that need to be studied), Relational (research questions that focus on the relationship between two or more variables), and Causal research (problems that look at cause and effect) (Walia & Chetty, 2020).

**Exploratory Research Problem:** This addresses questions such as ‘what is?’ with the goal of describing a specific phenomenon’s situation, state, or existence. They make an attempt to depict what already exists in a group or population. Example, ‘What are the primary factors influencing consumer purchasing decisions?’ (Walia & Chetty, 2020). Cross-sectional studies and longitudinal studies are used to collect data on these issues. However, data collection methods such as mail, online or offline surveys, and interviews can be used in both cases (Walia & Chetty, 2020). When conducting exploratory research, variables and hypotheses cannot be manipulated because they are usually non-directional (Hashimi, 2015).

**Causal Research Problem:** According to Walia and Chetty (2020), the goal of this type of research problem is to determine the extent and nature of cause and effect relationships. Such research questions help to determine the impact of various changes on existing norms and processes. As a result, they can recognise patterns in the relationships between various elements (Walia & Chetty, 2020). Experiments are the most commonly used method of gathering primary data in such cases. In this case, the hypothesis is usually directional, explaining how one factor influences the behaviour of another (Sharma, 2015). Such studies enable the researcher to manipulate the variables to his or her liking. There are two methods for collecting data for causal research: laboratory experiments and field experiments (Muhammad & Kabir, 2018).

**Relational Research Problem:** Based on this research problem, some kind of relationship between two variables must be investigated. The objective is to investigate the qualities or characteristics that are related in some way (Sharma, 2015). As a result, using more than one variable to describe the relationship between them is required in this type of research problem (Shoket, 2014).

The following considerations should be made when selecting a research problem type.

Identifying the concepts and terms that comprise the topic is the first step in determining the appropriate problem type, this entails determining the variables of the study (Alvesson & Sandberg, 2013). An exploratory research problem, for example, has only one variable. It is most likely relational or causal research if there are two variables (Walia & Chetty, 2020).

The second step is to conduct a literature review in order to improve the method of investigation and determine the best methods of analysis (Walliman, 2011). For instance, how much research has been done on this subject? What methods and data were used by previous researchers? What did their investigation omit? What factors did they employ? The answers to these questions will be useful in developing the best research strategy (Walia & Chetty, 2020; Padede, 2018).

The third step is to look for resources that will assist the researcher in broadening, revising, and strengthening their initial ideas. A more in-depth examination of the research will answer critical questions like, “Is a relational approach better than an investigative approach?” How will removing a few variables affect the study’s outcome? (Muhammad & Kabir, 2018; Padede, 2018).

## SOURCES OF RESEARCH PROBLEMS

According to Nixon (2019), each researcher selects a problem based on his or her own needs and objectives. It is difficult, if not impossible, to identify a specific problem or issue without a frame of reference (experience, theory, group of concepts, etc.). That is, regardless of the problem or issue under consideration by the researcher, certain influences will inform how the researcher describes and explains the problem to the audience (Nixon, 2019). However, the following are some useful resources to help researchers identify a suitable and significant problem.

### Empirical Deductions

This relates to research problems originated or based on observation or experience, such as:

**Personal Experience:** Everyday experiences of the researcher can inspire good research questions. Researchers can think critically about their personal experiences and/or frustrations with a societal, community, or neighbourhood issue (Kebritchi, 2017). This can be obtained, for example, from deliberate observations of certain relationships that have no clear explanation, or from witnessing an event that appears harmful to a person or group or that is unusual (Ezeogu, 2016).

**Interviewing Practitioners:** Discussions with practitioners and experts in the field, such as teachers, social workers, health care providers, and so on, provide an opportunity to identify practical, “real world” problems that might have been understudied or ignored within academic circles (Ellis & Yair, 2018). This approach also provides some practical knowledge that may be useful in the process of designing and conducting a study (Ellis & Yair, 2018).

**Intuition:** Traditionally, intuitions have been regarded as both good sources of knowledge and sources of new research problems. The reflective mind is believed to be a good source of ideas for developing an interesting research problem (Shama, 2015).

**Exposure to Field Situations:** Researchers gain a wide range of experience during field exposure, which can provide a wealth of ideas for developing research problems (Antony, 2019).

**Current events reported in the media:** A phenomenon may be noticed in a specific society or community before it is recognised by the media. Thus, prospective researchers must keep an eye out for events,

activities, or innovations that are becoming popular in practise or are being reported in popular media (Nixon, 2019). Those things could be the next big ‘thing’ that defines research across multiple disciplines (Nixon, 2019).

**Organisational Stakeholders:** Clients, suppliers, and other partners within an organisation may express needs that do not have an obvious solution. This may necessitate some research (Nixon, 2019).

### Theoretical Deductions:

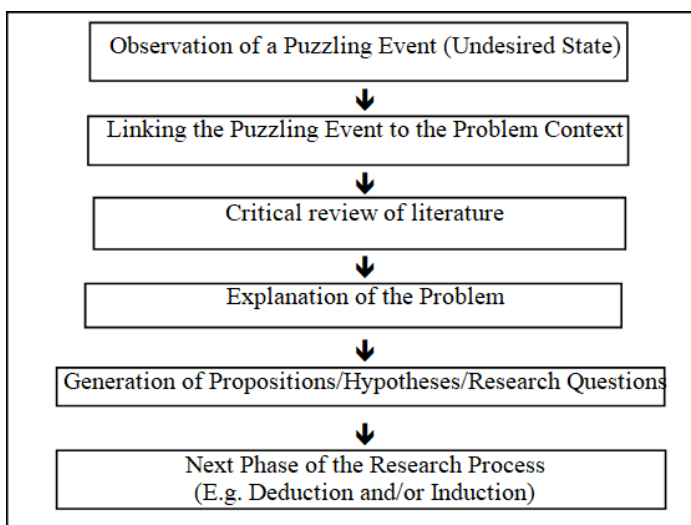
This refers to deductions from social philosophy or generalisations embodied in everyday life in a society with which the researcher is familiar. These deductions from human behaviour are then fitted within an empirical frame of reference through research (Muhammad & Kabir, 2018). A theory can be used to create a research problem or hypothesis that expresses the expected outcomes in specific empirical situations. A systematic investigation can be designed and carried out to determine whether empirical data confirm or reject the hypothesis and the theory (Walliman, 2011).

### Conceptual Deductions:

Identifying and reading about key concepts that emerge whenever the researcher encounters perplexing issues is a good source of research problems (Muhammad & Kabir, 2018). Furthermore, a thorough review of relevant research related to the researcher’s overall area of interest can frequently lead to the selection of a research problem. This may reveal where there are still gaps in a subject’s understanding (Nixon, 2019). Research may be conducted to: fill such knowledge gaps; determine whether previous study methodologies can be adapted to solve other problems; and determine whether a similar study could be conducted in a different subject area or applied to a different study sample (i.e., different groups of people) (Sanjay, 2015). A body of knowledge should be built on the foundation of solid research findings. Authors frequently conclude their studies by mentioning implications for future research or problems that need to be addressed. This is typically based on previous research flaws, which can be a useful source of problems to investigate (Nixon, 2019)

### Conceptualisation of Research Problem in Management Sciences

The steps for conceptualising a research problem in management sciences identified by Nixon (2019) are illustrated below.



**Fig. 1 Conceptual Model of Statement of Problem**

**Source: Adopted from Nixon (2019)**

### **Step 1: Observation of a Puzzling Event (Undesired State)**

A study can be problem- or opportunity-based (Padede, 2018). A researcher may notice changes (attitudes, feelings, and actions) in the external environment (workplace, organisation, society, family, etc.) that are difficult to explain in terms of their implications. Such changes perplex researchers because they are not desired (Nixon, 2019). A researcher attempts to better understand the problem when confronted with such perplexing events/observations by first identifying and reading about the key concepts that ‘pop up’ in relation to the issue from time to time (Awal, 2019). Second, the researcher investigates the history of the issue to determine why it is so perplexing. A quest for conceptual clarity, on the other hand, is motivated by the researcher’s background, which influences the theories used to describe and explain the problem (Awal, 2019).

### **Step 2: Linking the Puzzling Event to the Problem Context**

In addition to determining the background of the perplexing problem and conceptual clarity, a researcher attempts to relate the broad concepts of the issue to a specific problem situation/context (Padede, 2018). According to Daellenbach and Mc Nickle (2015), context is the sum of all factors that can or may influence or shape the problem or issue under consideration. A researcher should focus on those aspects of the problem context that affect the measure of performance directly or indirectly and over which the researcher has no immediate control when describing the problem context (Nixon, 2019).

### **Step 3: Critical review of literature**

The researcher is first confronted with observations of a perplexing event, and then conducts an intensive and extensive review of literature to obtain a conceptual clarity, background of the issue, and problem context (Padede, 2018). The researcher should also consider whether previous research groups have attempted to solve problems related to that issue, as well as any aspects of that issue that have not been addressed (Padede, 2018).

### **Step 4: Explanation of the Problem**

Following that, the researcher clarifies the topic, structures the problem adequately, and envisions specific propositions or hypotheses that warrant further investigation (Olayemi, 2021). This process allows for a critical analysis of the problem by employing an “old” theory that can be used to tentatively structure the problem (Olayemi, 2021). In contrast, the “old” theory may not fully explain the problem. To validate the “old” theory, other research methods (deduction and induction) will be used (Ochara, 2019; Olayemi, 2021).

### **Step 5: Generation of Propositions/Hypotheses/Research Questions**

When the a researcher has developed an understanding of the study’s background, conceptual clarity, and a critical review of literature, the result will be a conceptual/theoretical framework that serves as the foundation for developing propositions, hypotheses, and research questions for the perplexing issue/problem (Nixon, 2019; Muhammad & Kabir, 2018). Part of the outcome of the critical review of literature is the selection of an “old” theory that is used to tentatively describe and explain the problem without excluding new facts that may not have been included in the “old” theory (Nixon, 2019; Indeed Editorial Team, 2021).

### **Considerations in Formulating a Research Problem**

A few factors must be considered by the researcher when formulating a research problem for a study. The following factors will make the research process more manageable and keep the researcher motivated.

1. **Interest:** This is the most essential criterion to consider when identifying and formulating a research problem (Mahyuddin, Nasution, & Indra, 2019). The entire research process is typically time consuming and labour intensive. If the topic chosen does not pique the researcher's interest, it will be difficult to maintain motivation to write (Mahyuddin, Nasution, & Indra, 2019; Shoket, 2014). Before developing a research problem, researchers must ensure that they have an extent of expertise in the field. They will conduct the study using the information they gathered as well as assistance from their supervisors (Mahyuddin, Nasution, & Indra, 2019; Shoket, 2014).
2. **Data Availability:** If the research title necessitates the collection of information (journal, reports, proceedings) before finalisation, the researcher must ensure that these materials are available and in the appropriate format (Rashid, 2022; Sharma, 2015; Shoket, 2014).
3. **Relevance:** Researchers should always select a topic that is relevant to their interests and profession. They must ensure that their research contributes to the existing body of knowledge. Of course, this will assist them in maintaining their interest all through the study period (Mahyuddin, Nasution & Indra, 2019; Muhammad & Kabir, 2018; Rashid, 2022).
4. **Ethics:** When developing a research problem, researchers should consider some ethical issues. It is critical to follow ethical guidelines when developing a research problem in order to establish the research's validity (Rashid, 2022; Akhtar, 2014).

## Evaluation of Research Problems

After identifying and formulating a potential research problem, the researcher must evaluate it to ensure that it is suitable for research. A research problem is considered appropriate if it is supported by the literature, significant, timely, novel, specific, and researchable. Stronger research problems are more likely to be published, presented, and successfully applied (Kebritchi, 2017).

1. **Supported by the Literature:** The research problem should be topical and backed up by several current peer-reviewed studies (Kebritchi, 2017). Regardless of whether the identified problem is based on a single journal article or dissertation recommendation, the researcher must carry out a literature search to make sure that it has been confirmed by other researchers, as well as additional research to address the problem (Awal, 2021; Kebritchi, 2017; Akhtar, 2014).
2. **Significant:** The research problem should be beneficial to the field. The impact can be both practical and conceptual, with the work advancing the field by filling a knowledge gap (Kebritchi, 2017).
3. **Timely:** The research problem ought to be pertinent to present-day field needs and well suited to the current state of the field's issues (Ezeogu, 2016). Examine the subjects covered in current field journals. Examine requests from appropriate disciplinary organisations. Examine the research agenda's centre and focus areas. Identifying a current issue in the field and supporting it with recent literature can help to justify the problem's timeliness (Ezeogu, 2016).
4. **Novel:** The research problem should be unique and original. Its goal should be to fill a knowledge or application gap (Nixon, 2019). A comprehensive review of the literature can help the researcher determine whether the problem has previously been solved with a specific sample and/or context (Kebritchi, 2017). Speaking with subject matter experts can shed light on a problem (Ezeogu, 2016). The replication of an existing study warrants further discussion of value, but novelty can be found in determining whether an already-solved problem holds true in a new sample and/or context (Mahyuddin, Nasution, & Indra, 2019; Shoket, 2014; Kebritchi, 2017).
5. **Specific and Clear:** The research problem should be specific enough to guide the study, pose research questions, and select the best research method and design. Vague research problems may be ineffective in terms of defining the scope of the study or developing research questions (McCombes,



2021; Shoket, 2014; Kebritchi, 2017).

6. **Researchable:** To solve research problems, the scientific method is used. This means that research-ability, or the feasibility of the problem, is likewise as important as all other characteristics (McCombes, 2021). The researcher should be able to solve the problem using his or her abilities as well as the available research methods, designs, research sites, resources, and timeframe. If a research problem possesses all of the characteristics listed above but is not researchable, it may not be an appropriate research problem (Amar, 2017).

## Research Problem Statement

Following the identification of the research problem for a project, researchers must write a problem statement, which is the cornerstone of management sciences research and any other research (Miles, 2019; McCombes, 2021). A problem statement is primarily a statement of a problem in a field that has been documented, verified, and supported by literature and is having an adverse or negative impact on some elements of the field (Ellis & Yair, 2018). The goal of research is for the researcher to look at a problem and potentially come up with a solution or some kind of innovation that will either solve or reduce the problem and benefit those in that field (Mahyuddin, Nasution & Indra, 2019). A problem statement is a concise description or overview of the problem or problems that a project intends to address. The problem statement specifies the current state, the desired future state, and any gaps that exist (Mahyuddin et al., 2019). A problem statement is a useful communication tool that serves to make sure everyone involved in a project comprehends the problem and why the project is essential (Muhammad & Kabir, 2018).

Writing a problem statement in management science research can assist researchers in contextualising and comprehending the significance of the research problem (Muhammad & Kabir, 2018). A problem statement can be a number of paragraphs long and be used as the foundation for a research proposal, or it may be summed up in a few sentences in the introduction section of the paper or thesis (Mc Combes, 2021). The problem statement will vary based on if the researcher deals with a practical real-world issue or a theoretical scientific issue. However, all problem statements follow the same procedure (Kirsten, 2016).

A problem statement's purpose includes the following as highlighted by Mc Combes (2021):

- i. Put the issue into context (what is already known?)
- ii. Describe the specific issue that the research will address (what information is required to be known?)
- iii. Demonstrate the problem's relevance (why is it important to know about it?)
- iv. Set the research objectives (what will be done to find out?)
- v. Provides a framework for reporting the findings, indicating what is likely to be required to conduct the study and explaining how the findings will present this information.

## Characteristics of Problem Statement

- i. Some characteristics of problem statement as highlighted by (Kirsten, 2016) includes:
- ii. Clarity and precision (a well-written statement avoids broad generalisations and irresponsible assertions).
- iii. Identifying what will be studied while steering clear of the use of value-laden words and terms.
- iv. Identifying an overarching question as well as key factors or variables.
  - v. Identifying key concepts and terms.
  - vi. Articulation of the study's boundaries or parameters.
- vii. It is limited in scope, but it does have some generalisability in terms of applicability and bringing results into general use.
- viii. Communication of the study's importance, benefits, and justification (irrespective of the type of research, it is critical to address the "so what" question by demonstrating that the research is not trivial).

- ix. It is unique and has not been addressed previously (for example, it addresses a different research question or is applied in a novel way).
- x. Can be found in the literature. It must be significant, as demonstrated by the literature.
- xi. It is neither the researcher’s opinion nor a problem that the researcher believes exists, but it should have an adverse effect on some aspect of their field.

### Parts of a Problem Statement

Kirsten (2016) identified two major parts of problem statement, which are as follows:

**The General Problem:** This is essentially a general problem statement that serves as the introduction to the problem statement. It helps to set the tone for the gravity of the situation. It is necessary as a foundation for gaining a better understanding of the specific problem (This is essentially a general problem statement that serves as the introduction to the problem statement. It helps to set the tone for the gravity of the situation. It is necessary as a foundation for gaining a better understanding of the specific problem (Kirsten, 2016; Amar, 2017). The general problem comes before the specific problem in the problem statement (Kirsten, 2016). The researcher should describe the general problem that the study will address based on defined needs or gaps in the literature when writing the problem statement (Miles, 2019).

**The Specific (Localised) Problem /Gap:** Kirsten (2016) defines this as the specific issues that the researcher wishes to address. It reveals how a general problem affects a specific organisation or population, allowing the researcher to aid in the research (Kirsten, 2016). The researcher must spell out the specific problem(s) in a problem statement, citing sources to prove that it is a problem (Miles, 2019). The researcher must specify the scope of the problem, including where and for whom the problem will be researched, as well as the public who will be affected if the problem is not solved or who will benefit if it is solved. Furthermore, how the problem is related to business (Kirsten, 2016).

### Flow of Ideas in a Problem Statement in a Research Paper

Fischler (2019) highlighted the following model of idea flow in a problem statement in a research paper or thesis.

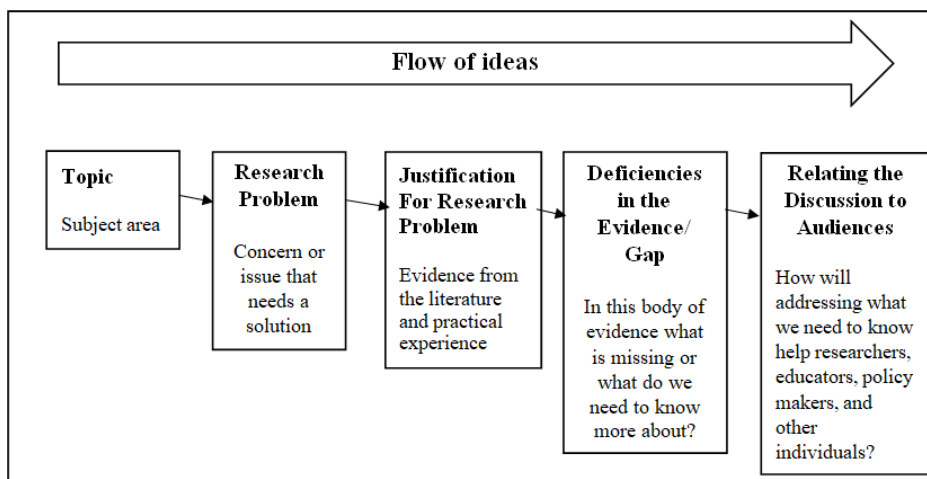


Fig 2. Flow of Ideas in the Problem Statement

Source: Adopted from Fischler (2019)

- i. **The Topic:** This is a synopsis of the proposed research area. It must contain at least two sentences (Fischler, 2019).
- ii. **The General Problem:** This is a point of contention, concern, or conflict (a gap between what is

desired and what is observed). It ought to incorporate the most pertinent reference to back up the claim (Kirsten, 2016; Fischler, 2019).

- iii. **Background and Justification:** The evidence and relevance from the literature and published or archival data demonstrating the existence of the problem. At least two references should be included. Researchers should also have a theoretical basis for their research (Kirsten, 2016; Fischler, 2019).
- iv. **Deficiencies in the Evidence/Gap/ localised problem:** It should include a brief discussion of the area of need (in relation to the overall problem) and the lack of evidence in the literature (Mc Combes, 2021; Kirsten, 2016; Fischler, 2019).
- v. **Audience:** It must address who is affected and who benefits (Fischler, 2019).
- vi. **Purpose of the Study:** Make a sentence that begins, “The purpose of this study is...” The researcher must clearly identify and define the study’s central concepts or ideas (Fischler, 2019).

## CONCLUSION

Identifying the research problem, is the issue being addressed in this study, it is the first and most important step in undertaking a research. A research problem is derived from a topic, or the broad subject matter addressed in a study. Given that a topic is chosen based on factors such as interests, expertise, relevance, data availability, manageability, contribution to literature, and ethics, the research problem is assumed to meet these criteria. The presence of these factors may indicate that the problem can and should be investigated. This article discussed the issue with identification of research problem for novice and burgeoning researchers. It discussed the sources and types of research problem. The article provided a conceptual models and tools for helping researchers with formulating the research problem as well as criteria for evaluating the research problem. This article contributes to the research method literature by emphasising the significance of research problem identification and the critical factors.

It also discussed the research problem statement, which is succinctly stated in one or more concise paragraph but not exceeds one page by including five elements. The five elements includes the topic, research problem, justification for research problem, deficiencies in the evidence/ gap, relating discussions to audience, and purpose. The study in addition provided a conceptual model for the flow of ideas in the research problem statement. The development of the problem statement is an integral part of the research endeavor. Possibly future studies in research methods and strategies could provide further development on problem statement in research.

## RECOMMENDATIONS

The following recommendations are made based on the findings of the study.

1. Researchers should identify and formulate appropriate research problem with the aid of the model of the study because the research problem is the foundation for all types of research.
2. Researchers should be more cognizant of research problem identification and appropriate methods for developing a problem statement by publishing articles on the subject in peer-reviewed journals.

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