
COMMON FALLACIES OF SCIENTIFIC METHODOLOGY IN SOCIO-LEGAL RESEARCH

Legal Upanishad Journal (LUJournal.com)

Vol 1 Issue 3 | December 2023 | pp. 141-149

Swesthiga K, Law student, National University of Advanced Legal Studies, Kochi

ABSTRACT

The common fallacies of scientific methodology in socio-legal research will be analysed in this manuscript. The concept of scientific methodology and socio-legal research is broad, and they have created common fallacies of scientific methodology in socio-legal research. My research findings show certain fallacies in the use of scientific methodology, even though there are many benefits to its use in socio-legal research, and also indicate how it affects socio-legal research. For example, we need a specific population to collect data in socio-legal research, but we cannot achieve this because of certain circumstances, and without this data, we cannot report the findings. This is one of the most common fallacies in this type of research.

Keywords: *Data, Fallacies, Findings, Scientific Methodology and Socio-Legal research.*

1. INTRODUCTION

Research, in layman's terms, means searching for information or solving a problem again and again. In broad terms, research means looking for new knowledge, looking for facts, measuring phenomena and weather, developing new materials, etc. Socio-legal research will help us understand the relationship between law and society. Socio-legal research is a vast area with complexities, as it includes many subjects like law, social science, political science, etc. Scientific methodology is nothing but the action of collecting data to analyse a particular area. The concept of scientific methodology and socio-legal research is broad, and they have created common fallacies of scientific methodology in socio-legal research.

The research findings show certain fallacies in the use of scientific methodology, even though there are many benefits to its use in socio-legal research, and also indicate how it affects socio-legal research. For example, we need a specific population to collect data for socio-legal research, but we cannot achieve this because of certain circumstances. The researcher in the research project will try to explain the meaning of socio-legal research, the meaning of scientific methodology, the nexus of scientific methodology in socio-legal research and how it is beneficial, and the fallacies of scientific methodology that will come under socio-legal research and how those fallacies impact socio-legal research.

2. SOCIO-LEGAL RESEARCH

The study of effectively collecting sources to support a legal question is known as legal research. It is also the methodical study of issues and topics related to particular regulations, acts, etc. Definition of social research according to Young P.V.: “*We may define social research as a scientific undertaking which, by means of logical and systematised methods, aims to discover new facts or old facts and to analyse their sequences, interrelationships, causal explanations, and natural terms that govern them*”¹.

Socio-legal research means a study with an interdisciplinary approach that analyses the relationship between law and society.² The analysis includes social, economic, and cultural factors in a society, and it will connect with the law. Socio-legal research is also known as a

¹ P.P. MITRA, SOCIO LEGAL RESEARCH-THEORY AND METHODOLOGY (Thomson Reuters 2021)

² *Id.*

study with methodological, practical, and theoretical foundations in the social sciences. Examples of socio-legal research areas are the role of law in women's rights, the current situation of child marriages in a particular community or village, the impact of law on emerging technologies, etc.

3. SCIENTIFIC METHODOLOGY

Before looking into the meaning of scientific methodology, let us look into the difference between methodology and methods. A methodology is a theory of how research should be undertaken, whereas a method is a set of procedures or techniques for undertaking the research³. Both phrases sound synonymous with each other, and they are often interchangeable⁴. Scientific methodology is a method where the researcher collects and analyses the data for a particular study or research project. This methodology is also known as the process of testing and experimenting to determine facts in an objective manner. There are different steps that will fall under scientific methodology. They are:

Identification of an issue or problem: The first step is to identify the issue or problem in the intended area of your study.

Observation and Inquiry: After the identification of an issue, conduct an observation or investigation in a particular place regarding the area of the study. We can also conduct an interview with the targeted people in order to get a clear picture of the study. Before the observation or interview, we need to prepare questions or a questionnaire, which will be helpful for conducting research without chaos.

Form a hypothesis: A hypothesis means a statement with an assumption that has yet to be validated. If this research hypothesis is proven later, it will be taken as a fact. After creating a hypothesis, we can also create a test, which should identify an apparent change that empirical analysis can measure or verify.

³ Chunuram Soren, *Legal Research Methodology: An Overview*, 8(10) J. EMERGING TECH. & INNOVATIVE RSCH. (2021)

⁴ *Id.*

Create a report with the conclusion: After observing the facts and noting down the points, you have to make a report, and you can also conclude the study by stating whether the fact can be proved or disproved and by stating how the issue can be solved.

4. SCIENTIFIC METHODOLOGY IN SOCIO-LEGAL RESEARCH

“A research where science, law, and society connect with each other.”

Scientific methodology plays a significant role in socio-legal research as it contributes to the interaction between the law and society. The techniques here include collection, analysis, and interpretation of data. Let us look into how scientific methodology will be helpful in socio-legal research.

Empirical study: By doing an empirical study, the researcher will be able to collect evidence, observe reality, and have a great experience at the same time. An empirical study is more than a doctrinal or theoretical study, as the facts are easy to find and it makes a strong research hypothesis and report.

Socio-legal case analysis: To examine the social effects of the law, researchers apply different methods, such as examining how people and groups feel, work, and understand legal regulations and establishments. This method explains how laws are really applied and how they affect fairness and social justice, and it also promotes a more critical and detailed awareness of how the law shapes social power relationships.

Important legal analysis: Researchers analyse legal materials, legislation, and case law in order to learn about the legal framework relevant to a specific problem or occurrence. This approach sheds light on the formal rules and morals that influence social norms and judicial decisions. For instance, academicians investigate how gender inequality is upheld or challenged by legal systems and critically analyse the link between law, gender, and power.

There are a few rules that we need to follow before we use scientific methodology in socio-legal research. Before conducting research, primarily through observation or interview, we need to get consent from the selected person or group of people⁵. The researcher should keep

⁵ Perry Meyer, *Jurimetrics: The Scientific Method in Legal Research*, 44(1) CANADIAN BAR REV. (1996)

deep or personal conversations confidential. These will make the people comfortable and will also make the research paper moral and effective.

5. FALLACIES OF SCIENTIFIC METHODOLOGY IN SOCIO-LEGAL RESEARCH

The above analyses clearly show that the use of scientific methodology is beneficial in socio-legal research, and we've seen the concept regarding how scientific methodology works in socio-legal research. But in reality, there are several fallacies, misconceptions, or mistaken beliefs under this methodology, even though they outweigh the merits. Now, let us look into the common fallacies of scientific methodology in sociolegal research.

- Observing people's perceptions is one of the most common fallacies. Researchers sometimes misread people's opinions without hearing them out in detail. For example, a researcher asks a person a question and writes down the answer. Here, the fallacy is that the researcher is just noting down the answer and not the detailed opinion. Only with a detailed opinion will we be able to understand people's perceptions.
- Random fallacy: A researcher needs to observe many things in order to prove a fact. For example, if a researcher wants to prove that a court has many contempt of court cases, he or she should observe many court hearings and trials. Researchers confirming the fact just by attending one or two court halls or hearings is a random fallacy.
- Systematic fallacy: When the researcher is not able to reach the target, the study won't be accurate. For example, a researcher is not able to interview all the people in a particular village for data collection purposes. Therefore, he or she is not able to write an accurate report. Here arises the systematic fallacy
- Sampling error in scientific methodology is also one of the common fallacies in socio-legal research. While doing an empirical study, it is not possible to collect data from the whole targeted population; therefore, a researcher will select a sample. That sample will be helpful for analysis purposes. A fallacy in sampling is a statistical error that occurs when the sample is not valid or when there is a difference between the actual fact and an unclear fact when using the sample. For instance, a researcher

wants to collect data from a targeted population regarding data privacy. Here, to get an actual fact, we need to collect data only from the individuals who work in the IT field, who frequently use electronic gadgets for work, or who are mature enough to use them. We cannot collect data from people who do not have a general awareness of data privacy. Therefore, the researcher must collect the sample accordingly so that we will get the correct report from the correct samples⁶.

- Ecological fallacy: A mistake in reasoning is known as an ecological fallacy. Making conclusions about specific people from data gathered at the group level is known as an ecological fallacy. For example, Kalamassery shows a more significant number of domestic violence cases. From this, the researcher concludes that any individual living in that area has a higher chance of committing domestic violence. This is an ecological fallacy⁷.
- Science is not only the collection of facts but also about discovering the facts. In scientific methodology, the experiment is not the only way to test the hypothesis. There are different methods or techniques to test. Therefore, the scientific methodology in this research also includes discovering processes like how the law works, etc.
- The researcher's belief that scientific ideas are the same and unchangeable is another fallacy in research. Science always modifies. For example, if a researcher is doing research based on the impact of water pollution on a particular village, the researcher should not come to the conclusion that all polluted water causes death and should do an investigation on that.
- The belief that science and technology solve issues in society is another fallacy. Technology and science are incredible tools for teaching us about the world of nature, but they cannot solve every issue we face. For example, AI cannot help lawyers solve issues or help judges make decisions.
- Collecting or interpreting data in a way that validates preexisting views without taking into account different explanations is known as the confirmation fallacy. Biassed assumptions and incorrect interpretations may result from it. For example, researchers write a report by looking into the data without analysing the data that contradicts the original data.

⁶ REZA BANAKAR & MAX TRAVERS, THEORY AND METHOD IN SOCIO-LEGAL RESEARCH (Hart Publishing 2005)

⁷ P.P. Mitra, *supra* note 1

- The false dichotomy fallacy shows that there are only two possible outcomes without exploring the other options. This will create only a false report. For example, a researcher creates a question in a Google form and sets only two options (yes and no) for the answer. Question: Do crimes occur frequently in your area? Here, the participants are forced to choose only the yes-or-no option. There are other options, like no awareness, maybe, etc. This is a false dichotomy fallacy⁸.
- The post hoc ergo propter hoc fallacy is the presumption that events must be causally connected since one begins with another. In short, this fallacy says that the first event caused the second event. For example, the news states that a girl walked alone to her house and was gang-raped. The researcher concludes that girls walking alone on the road cause rape. This is called the post-hoc ergo propter hoc fallacy.
- It is common for people to remain in an initiative or course of action when giving it up would be preferable, and this is known as the sunk cost fallacy. For example, you are conducting an interview on animal rights, and the interview is not going as you expected. In this situation, the researcher still sticks to the interview without giving it because you've invested time and money in it, known as the sunk cost fallacy.
- Overlooking the amount of time it will take us to do a task in the future is known as the planning fallacy. Even though we are aware that previous studies have often taken longer than anticipated, we have unrealistic expectations and think things will go differently the next time. For example, I plan to finish the dissertation in just 15 days. Later on, I was stuck with other academic work and became less productive in my dissertation work. Later, I submitted my dissertation in a hurry as the deadline was near. Here, I underestimated the time and energy. This is known as the planning fallacy.
- The straw man fallacy is the process of developing and then opposing a viewpoint on a subject that no one is genuinely expressing. For example, a participant tells the researcher that the immigration policy of a foreign country should be made easier. The researcher concludes that the participant even wants the criminals to enter a foreign country easily. This fallacy is known as the strawman fallacy.

⁸ Reza Banakar & Max Travers, *supra* note 6

The other common fallacies the researcher commits are depending only on the materials and not doing empirical research for the study, referring only to a few pieces of information and not digging deep into the study, etc.

6. IMPACT OF FALLACIES IN SOCIO-LEGAL RESEARCH

A socio-legal researcher's credibility and reputation can be significantly undermined by the above-mentioned fallacies. When researchers make mistakes, their findings might be viewed as biased or untrustworthy⁹. This could affect their standing with others in their field and make it more challenging for them to publish their work or get it approved by legislators. Fallacies may hinder the emergence of new, imaginative ideas in socio-legal research.¹⁰ Fallacies can cause people to make unaware judgements that could end up being negative. Policymakers may decide against what is best for society when they base their judgements on research that contains flaws. Both people's lives and the lives of communities could be impacted as a result.

My insight here would be that socio-legal research is valuable because it addresses legal problems, advances social justice, offers evidence to support or deny legislative changes, and assists legal professionals in understanding the social context of what they do. Currently, there are emerging trends in scientific methodology in socio-legal research. As we are living in the digital world, social media also plays a major role in this type of research by creating new opportunities and making the researchers explore hidden facts. For example, collecting evidence from the Instagram reel regarding animal abuse. This will be helpful in the analysis of animal rights. Also, social media will help us learn about many non-governmental organisations regarding animal law, criminal law, gender equality, etc.

7. CONCLUSION

As humans, it is common and natural to make mistakes, and at a later point, we should correct ourselves for the mistakes. In the same way, a researcher also makes mistakes while doing research. From the above-mentioned fallacies, it is clear that there are several mistaken

⁹ Chunuram Soren, *supra* note 3

¹⁰ Perry Meyer, *supra* note 5

beliefs regarding scientific methodology in socio-legal research, even though using scientific methodology is fruitful. The researcher's understanding of the interaction between law and society is being significantly improved by the ever-evolving and expanding field of socio-legal studies. In a nutshell, it is necessary that socio-legal researchers take action against fallacies and remain aware of their pitfalls, as this is going to be participatory research for them. Researchers may contribute to ensuring that their work is accurate, dependable, and valuable for influencing common people by applying strong research techniques, carefully weighing different possible reasons for their findings, and being open and honest about their capabilities.