# Lecture 02 :Identifing a Gap in Literature

1.Defining a Research Gap in Literature

Before embarking on research, the first step is to deeply investigate the issue of interest via an intensive and comprehensive review of the literature. The ultimate aim of reviewing the literature is to identify a gap in the existing body of knowledge to avoid duplication in research .A gap in literature refers to an area of research that has not been adequately explored, a question that remains unanswered, or a problem that lacks sufficient investigation. Identifying these gaps is crucial for advancing knowledge and informing future research. Mathieson & Upton (2008) denote that '*the information that is required to fill this gap must be expressed clearly. Firstly, this information requirement is expressed in terms of an aim, and from there it is refined into a hypothesis. For every study the data collected must clearly related to the hypothesis-otherwise the information will be of little, if any, value in filling the knowledge gap identified*' (p.77) Identifying gaps in the literature is a systematic process that involves careful reading, analysis, and engagement with the research community. By recognizing these gaps, researchers can contribute valuable insights and advance their fields effectively.

2. Types of Gaps in Literature

1. **Knowledge Gaps**: Areas where existing research is scarce or non-existent. For example ,a newly emerging phenomenon (e.g., the impact of AI on mental health) may not yet have extensive studies.

2. **Methodological Gaps**:   Methodological gaps refer to inadequacies in the appropriateness or effectiveness of research methods used in prior studies. These gaps may arise when existing methodologies are not suitable for addressing specific research questions or when there is a need for innovative approaches to overcome methodological limitations.Limitations in research methods or approaches that can be improved or expanded. For instance,A field relying heavily on qualitative methods may benefit from quantitative approaches to validate findings.

3. **Theoretical Gaps**: Theoretical gaps relate to the theories or conceptual frameworks within a discipline that require further elaboration or refinement. These gaps often occur when current theories do not adequately account for observed phenomena or when new findings challenge established theoretical models.Lack of theoretical frameworks that explain certain phenomena. For example,existing theories may not sufficiently explain new social dynamics in digital communication. **Example**: Research focusing primarily on urban populations may overlook rural perspectives.

4. **Contextual Gaps**: Underexplored contexts or populations in existing studies.

5. **Temporal Gaps**: Changes in time or technology that affect previous findings. Studies on consumer behavior pre- and post-pandemic may reveal significant shifts that warrant new research.

6 **. Disagreement Gaps :**refer to areas within a field where researchers have conflicting findings, interpretations, or conclusions about a specific topic or phenomenon. These gaps highlight the lack of consensus among scholars, indicating that further investigation is necessary to resolve these discrepancies.
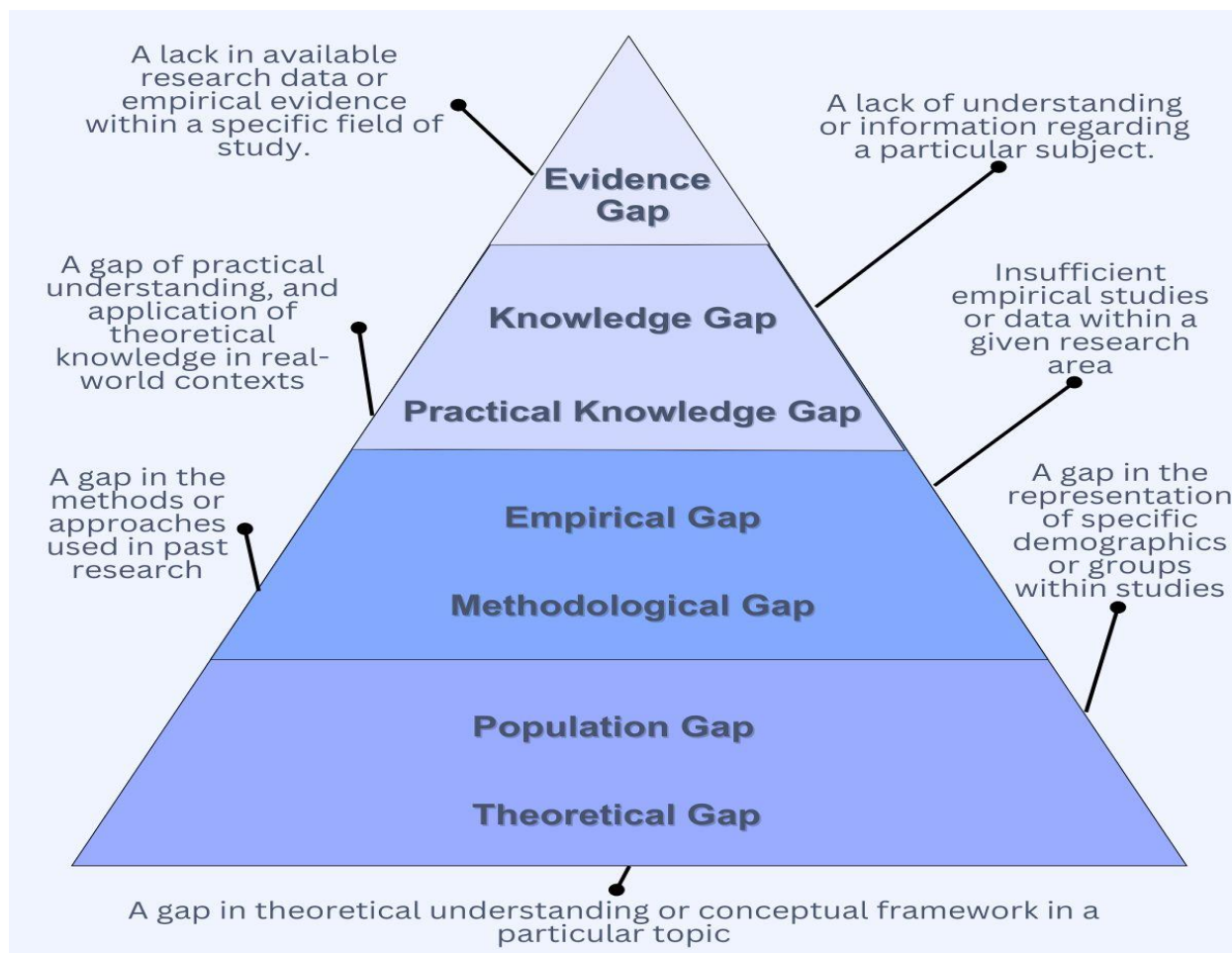
Research Gap Types retrieved from *https: //www.linkedin.com/posts/emmanueltsekleves_research-academia-phd-activity-7195037975414538241-jemI/*

3.How to Identify Gaps in Literature

1. **Conduct a Comprehensive Literature Review**:
   - Search academic databases (e.g., Google Scholar, PubMed, JSTOR) using relevant keywords.
   - Review recent articles, journals, and books in your field.
2. **Analyze Existing Studies**:
   - Look for limitations or recommendations for future research in the discussion sections of papers.
   - Pay attention to frequently cited studies and assess if their findings have been challenged or built upon.
3. **Identify Recurrent Themes**:
   - Note what questions remain unresolved across multiple studies.
   - Look for discrepancies in findings that suggest further exploration is needed.
4. **Engage with Experts**:

- o Attend conferences, workshops, and seminars to hear about emerging issues and questions in your field.
- o Network with researchers to discuss potential gaps they have identified.

5. **Review Systematic Reviews and Meta-Analyses**:
   - o These studies often highlight gaps in the literature and areas needing further investigation.

6. **Explore New Technologies or Contexts**:
   - o Consider how new technologies or changing societal contexts might create new research opportunities.

7. **Utilize Research Mapping**:
   - o Create visual maps of existing research to highlight areas with less attention.

8. **Reflect on Practical Issues**:
   - o Consider real-world problems that are not adequately addressed by current research.
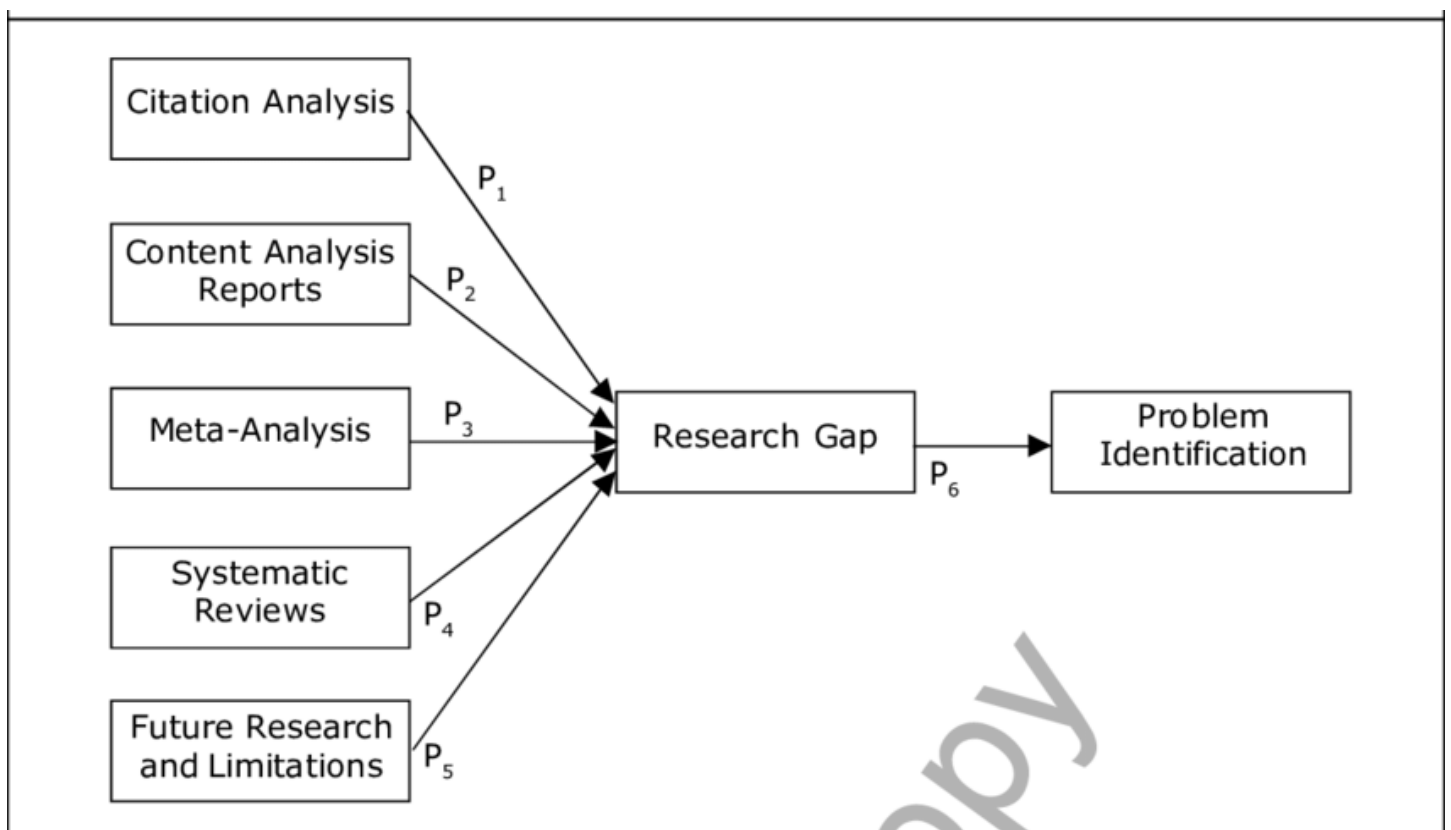
Conceptual Model of Research Gap (Farooq ,2018,p.69)

1.Citation Analysis

Citation analysis is a highly effective method for identifying and examining research gaps. Highly cited research papers provide essential insights into problem identification. Hoffmann and Doucette (2012, p. 321) describe citation analysis as "a branch of bibliometrics that explores the citations in publications such as journal articles and books to uncover usage patterns." Smith (1981) noted that "the development of citation analysis has been characterized by the introduction of new techniques, tools, and the study of various units of analysis, resulting in a significant increase in both the number and types of studies employing citation analysis" (p. 85). This approach is predominant in identifying research gaps using platforms like Google Scholar, Scopus, Web of

Science, CiteSeer, SciFinder, and various scholarly databases such as Ebsco, ProQuest, and Emerald to locate papers with high citation counts. The analysis relies on the keywords and nature of the study involved. As Hoffmann and Doucette (2012, pp. 324-325) point out, "The most crucial aspect of citation analysis relates to the variables that each researcher chooses to examine." Tools like Microsoft Excel, Access, and SPSS can facilitate citation analysis, while Journal Citation Reports (JCR), Scimago Journal and Country Rankings, and Essential Science Indicators can help verify journal and study citations. Thus, we propose that Citation analysis is a key predictor of research gaps that lead to problem identification.

2.Content Analysis Reports

Content analysis is a qualitative research technique used to draw inferences from texts, images, and documents. It can be particularly useful for identifying research gaps in qualitative studies. According to Duriau et al. (2007, p. 5), "Content analysis, a method straddling qualitative and quantitative traditions, holds promise for the thorough exploration of significant but challenging issues for management researchers." Many researchers lack a fundamental understanding of how to identify and explore research gaps using content analysis. Duriau et al. (2007, p. 23) argue that "carefully implemented content analysis should be of great interest to management researchers due to factors such as access to deep managerial structures, non-intrusiveness, analytical flexibility, and the capacity for longitudinal designs." Hence, we propose that Content analysis reports are a valuable predictor of research gaps that lead to problem identification.

3.Meta-Analysis

Meta-analysis involves statistically integrating findings from previous studies to identify research gaps. Conducting a meta-analysis can be challenging for researchers unfamiliar with the methodology. Meta-analysis reports offer a comprehensive overview of a particular construct, including its measurement and various findings. Exploring research gaps through meta-analysis is often overlooked due to a lack of understanding of the process. Therefore, we propose that Meta-analysis is an essential predictor of research gaps that lead to problem identification.

4.Systematic Reviews

Green (2005, p. 270) defines a systematic review as "a scientific tool used to appraise, summarize, and communicate the results and implications of otherwise unmanageable quantities of research." This method collects and analyzes literature on a specific research problem from various studies. Systematic reviews are typically quantitative, allowing researchers to explore literature that may support or contradict findings based on the nature of the study. Tranfield et al. (2003, p. 208) state, "The purpose of conducting a literature review is often to map and assess existing intellectual territory and specify a research question that can further develop the body of knowledge." Robinson et al. (2011) created a framework to assist in identifying and characterizing research gaps through systematic reviews. However, simply reviewing literature from databases does not

guarantee the identification of research gaps; thorough reading and understanding of the problem or research question are necessary.

State-of-the-art papers are another avenue for exploring research gaps. Patter (2016) describes a state-of-the-art paper as "a variation on the history of the field that presents a new perspective on existing literature. These papers are typically generated through narrative or thematic reviews and are explicitly selective." Researchers focusing on quantitative literature reviews must understand how to conduct these reviews, what tests to apply, and how to calculate effect sizes. Christoph and Kranz (2015, p. 2) emphasize the need for a framework to help scholars identify research gaps in qualitative literature reviews aimed at summarizing existing theories to find theoretical or research gaps. Therefore, Systematic reviews are crucial predictors of research gaps that lead to problem identification.

4.How to Address a Gap in the Literature

1.Narrow Down the Gap: Start by clearly defining the specific scope and nature of the research gap. Establish the boundaries and dimensions of the gap to ensure that your investigation is focused and your research efforts are both targeted and impactful.

2.Develop Research Questions: Create clear and concise research questions that directly address the identified gap in the literature. These questions should adhere to the SMART criteria: specific, measurable, achievable, relevant, and time-bound, guiding your research toward effectively filling the existing void.

3.Design a Research Plan: Craft a structured research plan that aligns with your identified research questions. Specify the methodologies, data collection strategies, and analytical approaches best suited to address the research gap. Consider incorporating innovative techniques or interdisciplinary methods to strengthen your research design.

4.Engage in Iterative Research: Treat the research process as iterative, allowing for flexibility and adaptation based on new findings and insights. Continuously refine your research methods and strategies to address any unforeseen challenges or opportunities that arise during your investigation.

5.Tools to Aid Your Search

With thousands of articles published daily, keeping up with the literature can be overwhelming. Utilize available technology to stay informed. Tools like PubCrawler, Feedly, Google Scholar, and PubMed updates can be invaluable. Engage with academic communities on social media platforms, such as Twitter, where scholars discuss new findings. Reference managers like Mendeley can help organize your references. Google Scholar and PubMed are effective for tracking developments and identifying remaining gaps in my areas of interest.

The key takeaway today is that finding an innovative and exciting research topic is challenging without a solid grasp of the existing literature. This is why identifying research gaps begin with a thorough literature review. Set boundaries for yourself; there's no need to read every paper ever written on a topic. It's common to think you're on the right path only to discover someone has already explored it. It happens to everyone, including me. Don't get discouraged—keep reading and you will find what you're looking for.