



Framework for Identifying Research Gaps for Future Academic Research

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ABSTRACT

Wang, Wang, Chen, and Yang (2016) defined research gaps as a region where the ability to infer a particular question is constrained by a lack of knowledge. It is an area where the methods and insufficient research data have limited the capacity to get to a fully reliable judgment on a research subject. Therefore, academics need to situate their objectives in the research gap of the subject field. Particularly research gaps are those research questions that have not been addressed properly beforehand. This not only indicates the study's relevancy but also the considerable contribution it could bring to the field of study (Issah, Hamza, & Prosper, 2022). According to Ajemba and Arene (2022) posing questions and finding new research areas based on previous studies are the first steps in doing research. The limitations of the study's design, the use of inadequate instruments, or other factors that the researcher could or could not control led to the development of a research gap. For new and inexperienced researchers, it might be challenging to explore the research gap due to a limited amount of criteria or established methodologies, making research gap analysis confusing and equivocal. For example, if the researcher is investigating a broad region and then going to pick a more specific field might contribute to the description of a statement of the problem. This study's goal is to offer a methodology for determining research gaps. It will make recommendations based on each aspect of the research gap analysis framework.

Keywords: Research Gaps, Citation analysis, Content analysis, Systematic analysis, Meta-analysis, Systematic analysis.

Identifying Research Gaps

According to Abass, Banjo, and Aboosedo (2020), it can be challenging for researchers, especially those earning a Masters' or Ph.D., to pinpoint the knowledge gaps in their particular disciplines. The preliminary and most crucial phase in creating a study or dissertation may be considered to be identifying gaps and coming up with research questions. There are many various ways of identifying research gaps, however, these tasks are never simple as they are meant to be. Farooq (2017) suggested five conceptualization methods for identifying research gaps; "citation analysis, content analysis, meta-analysis, systematic reviews, future research, and limitations" (p. 68). The thorough summaries of each proposed framework in identifying a research gap, based on an extensive assessment of the literature, are provided in the following paragraphs.

Citation Analysis

Rousseau (2008) referred to citations as the list of works that are cited in a published work. When anything is referenced, it must be mentioned appropriately and have a clear bibliographic citation in the list of references. Hoffmann and Doucette (2012) defined "Citation analysis as a subfield of bibliometric that looks for patterns of use in citations found in publications such as journal articles and books" (p. 321). This sort of analysis often entails recording the contents of the quantity of publications' reference lists to discover what issues are being referenced and after that assessing those documents by the list of criteria. According to (Farooq, 2017) the best method for locating and assessing the research gap is citation analysis. High-cited research articles offer a fundamental grasp of problem identification.

The majority of researchers utilized spreadsheet or database software to examine the citation data collected; the most commonly stated applications were Microsoft Access, Microsoft Excel, and SPSS. There are many useful resources that are used to verify these programs while doing citation analysis. "Citation analysis is the dominant way to identify the research gap using Google Scholar, Scopus, Web-of-Science, CiteSeer, SciFinder, Faculty of 1,000 and scholarly databases including Ebsco, ProQuest, Emerald, etc., to identify the papers or studies with a maximum number of citations" (Farooq, 2017, p. 17). The evolution of citation analysis has been defined by the creation of new methodologies and metrics, the use of new instruments, and the investigation of various units of analysis. Smith (1981) also argued that these developments have resulted in a fast increase in the quantity and variety of research that use citation analysis in identifying research gaps.

Content Analysis

A research method known as content analysis is used to find specific words, thoughts, or ideas in a given set of qualitative data. For example, the researchers can assess a news article's wording to look for prejudice or favouritism. After that, the Scholars can then conclude the texts' messages, the writer(s), the audience, and even the social and historical period in which they were written. According to Gheyle and Jacobs (2017), to understand the information within context, whether they be words, photos, symbols, or audio data, content analysis is the study approach. The content analysis, which straddles the qualitative and quantitative traditions, holds promise for the thorough investigation of a number of crucial but challenging subjects of interest to scholars (Durlau, Reger, & Pfarrer, 2007). Conducting a thorough content analysis identifies the research gap for future research as well. Using content analysis in identifying research gaps has identified a number of benefits. The most important contribution of content analysis to the research gap is the provision of a repeatable approach to access core human or group structures including values, intents, attitudes, and cognitions (Carley, 1993). As a result, the content analysis may be used to study a variety of organizational phenomena in identifying research gaps for future research.

Meta-Analysis

Meta-analysis is the methodical synthesis or fusion of the results of several independent research studies. It uses an analytical approach to determine the general or unconditional impact. According to Pigott and Polanin (2020) with the use of meta-analysis, we may make assertions about what we know and don't know in a certain field by compiling quantitative data from a collection of research. It is the procedure of incorporating the results from earlier research through statistical examination of the existing literature. "Finding research gaps using quantitative literature reviews and meta-analysis is a particularly difficult challenge for researchers who are unfamiliar with the fundamentals of meta-analysis" (Farooq, 2017, p. 72). Studies on meta-analyses give a general summary of a certain method, including how it has been assessed and the many conclusions related to it. In addition to an absence of knowledge and comprehension of meta-analysis, there is an unrealized and undiscovered potential for filling in research gaps. Any research gaps in the body of evidence that would restrict the application of results to significant situations should be described in the meta-analysis. A meta-analyst could spot the gaps in the sorts of people researched, for instance.

Systematic Analysis

A systematic review is a type of review that uses standardized methods to find, select, and summarize all pertinent data. It provides an explicit response to a well-stated research topic and details the approaches taken to reach the conclusion. Nunn and Chang (2020), stated that this type of review is a kind of statistical composition that construct broad or specific research questions and combine information that strongly relates to the subject of the systematic analysis. While some scholars may mistakenly link the "systematic review" and "meta-analysis," there are also other types of reviews that can be referred to as "systematic" that do not entail a meta-analysis. Systematic reviews are frequently made to offer a comprehensive summary of the most recent data pertinent to a research subject. This characteristic of systematic review has made it a very comprehensive concept for identifying research gaps for future research. A research gap is not created by simply searching databases for relevant material; instead, a research gap is created when the literature is thoroughly read and understood. Robinson, Saldanha, and Mckoy (2011), highlighted that the specific identification of research gaps will make it possible for systematic reviews to best guide the kinds of questions that must be answered and the kinds of studies required to fill the gaps in the body of knowledge.

Future Research, and Limitations

A study's limitations are its flaws or faults. Due to constraints in the research design, methodology, materials, etc., the findings of the study may be impacted. However, researchers frequently avoid mentioning the limitation of their study in their publications because they believe doing so could diminish the study's credibility in the minds of readers. According to Price and Murnan (2004) "A limitation of a study design or instrument is the systematic bias that the researcher did not or could not control and which could inappropriately affect the results" (p. 66). A Limitation in this sense is an enforced constraint that is virtually beyond the researcher's reach. For example, when analyzing

survey respondent responses, for instance, a researcher could only have access to a limited geographic area, which would hinder them from obtaining a complete picture of the participants. Even so, it could have an impact on the method of the research and findings it must be explicitly stated in the article when it is published. Research gaps can result from the comprehensive gathering of future research and limitations of various research papers, journals, and theses followed by systematic integration of all pertinent information and materials.

Conclusion and Recommendation

This literature-based study reviewed the theoretical framework in identifying the research gap for future research. The study reviewed the framework of “citation analysis, content analysis, systematic reviews, meta-analysis, future research, and limitation” in identifying the research gap. The reviewed identified are useful in addressing the research gap for future research and have the potential for problem-solving. Unless there are clearly defined and defensible gaps in knowledge, research is not valuable since the scholar may be repeating previously completed research or he or she may be lost having the knowledge gap that their research is intended to bridge. The current work provides a rigorous way to use citation analysis to look into the research gap., subsequently followed by a meta-analysis and study limitations, which may serve as a trustworthy source of research gap analysis. Only a small number of publications were selected for this investigation's literature review to give a theoretical basis for research gap analysis. Future studies need to establish arguments for every component of the framework in order to verify it and determine how much the dimensions represent the research gap. This study also suggested an improved research gap analysis approach.

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