



Research Gaps in Management Sciences: A Review of Literature

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ABSTRACT

This study examined research gaps in management sciences by reviewing different academic literatures. Research gaps identification had been undaunted challenges for most new researchers. Research gap can be viewed in different perception, what a particular researcher perceived as a gap, might not be perceived as a gap in the view of another researcher. It had usually been a struggle for many beginning researchers like doctoral students and other post graduate students to identify and define exactly what constitutes a research gap in their studies. In addition to this, the study examined different academic articles on appropriate and ideal methods of identifying research gaps in management sciences. Furthermore, the study also reviewed some articles for identification of research gaps in some published academic journals with the aid of content analysis techniques. The study revealed that, it was not all the identified research gaps that was fully explored by researchers; some types of gaps are fully explored while some are not, which could be as a result of dearth of knowledge in that aspect. The study recommended that new researcher should endeavour to streamline their area of interest, and researcher should localized there research gaps, and it was recommended that researchers must ensure that such research gaps are achievable.

Keywords: Content Analysis, Citation Analysis, Research Gaps, Research Gaps Method

Introduction

The concept of research gaps identification had been undaunted challenges for most researchers. Research gap can be viewed in different perception, what a particular researcher perceived as a gap, might not be perceived as a gap in the view of another researcher, hence research gap is in the eye of the beholder (Miles, 2017). For a research to be worthwhile however it must not be effort duplicating, it should extend current knowledge. To do this, a researcher must show that a gap exists in knowledge concerning the phenomenon of interest as every research is expected to contribute to knowledge and literature. Knowledge has to do with what is known about the issue of concern while the gap bothers on facts that still need to be known (Abass, Banjo & Abosede, 2020).

The perception of research gaps seems to be subjective, what that can be perceived to be a non-gap by a researcher may be considered as gap by another researcher. The bulk of this disagreement about research gap is based on interpretation (Baako, Alhassan & Gidisu, 2022). Baako, Alhassan and Gidisu (2022) further asserted that identification of where and how evidence falls short is critical for the formulation of a relevant research gap as well as giving direction on how to answer such research questions. Abass, Banjo and Abosede (2020) listed some factors that influence a researcher in the course of identification of a research gaps, these includes; the environment of the researcher, emergence of problems within such environment and personal enthusiasm of such researcher.

Coker and Macaulay (2019) asserted that one of the complex tasks in designing an efficient research outcome is on how to successfully identify a research gap. They further opined that the processes in identifying a research gap are of great challenge for students, new researchers and practitioners.

Statement of the Problem

Oyeniya, Abiodun, Moses, Obamiro and Osibanjo (2016) opined that answering a research questions without identifying research gap might be difficult, and this cannot be done without an in-dept review of different literatures. According to Miles (2017), it had usually been a struggle for many beginning researchers like doctoral students and other post graduate students to identify and define exactly what constitutes a research gap in their studies. Farooq (2018) asserted that identification of research gap from literature is a common practice but the criteria used seem to be ambiguous and vague.

Researchers, particularly those pursuing Masters or PhD often find it difficult to identify the gap(s) in the body of knowledge in their own chosen fields. Identifying gaps and generating research questions can be regarded as the first and most important step in writing a thesis or research paper. Consequently, there are many approaches for overcoming this difficulty, but finding original and innovative topics, and distinguishing gaps in the literature is never an easy feat (Abass, *et al.*, 2020).

Baako, *et al.*, (2022) noted that few studies have focused specifically on how researchers can systematically spot research gaps in research problems through specified approaches to construct significant research questions, in order to contribute significant knowledge in their field of study.

In developing countries such as Nigeria, research gap analysis is often seen as an ambiguous and confusing task for new researchers as they find it problematic and challenging on how to explore research gap because of lack of criteria or predetermined procedures (Azeez & Elegunde, 2022). In view of this, the study is informed to examine different academic literature available on how new researchers and novice researchers can thoroughly identify gaps in research problems through different scientifically approaches.

Research Objectives:

The main objective of the study is to review literature on research gaps, so as to establish the different approaches in identifying research gaps in the literature.

LITERATURE REVIEW

Concept of Research Gap

The concept of research gap is a piece of information or knowledge in the research literature regarding an area of research interest that has not been explored or is under-explored. It can also be a problem not properly addressed as a result of insufficient data to support claims or an area of research not ventured and as such missing in the literature. A research gap may be an issue for which there is inadequate or missing information to draw an empirical conclusion (Snilstveit, Vojtkova, Bhavsar, Stevenson & Gaarder, 2016).

A research gap, in a certain area of literature, is perceived as a topic or subject for which missing or insufficient existing body of knowledge limits the ability to reach a conclusion. It may also be considered as a problem for which existing body of knowledge does not provide a sufficient solution. Identification of an agreeable and significant research gap justifies the need for further research on which studies are based (Abass, *et al.*, 2020). They further asserted that research gap is the missing element in the existing research literature that a researcher sets out to fill with a study. In other word, a research gap is a research question or problem which has not been answered appropriately or at all in a given field of study.

Conceptual Model of Research Gap

This study is anchored on concepts developed by Muller-Bloch and Kranz (2015), which created a research gap model based on the Robinson, Saldanha and McKoy (2011) paradigm. After undertaking extensive research and conducting literature reviews, they established their theoretical model on research gaps. Miles (2017) further worked on the research gap model developed by Robinson, *et al.*, (2011); which led Muller-Bloch and Kranz (2015) to develop seven types of research gaps. The seven types of research gaps identified by Miles (2017) are: (a) Evidence Gap; (b) Knowledge Gap; (c) Practical-Knowledge Gap; (d) Methodological Gap; (e) Empirical Gap; (f) Theoretical Gap and (g) Population Gap. These gaps are captured in the conceptual model as shown in figure 2.1, which will be fully discussed in subsequent paragraphs.

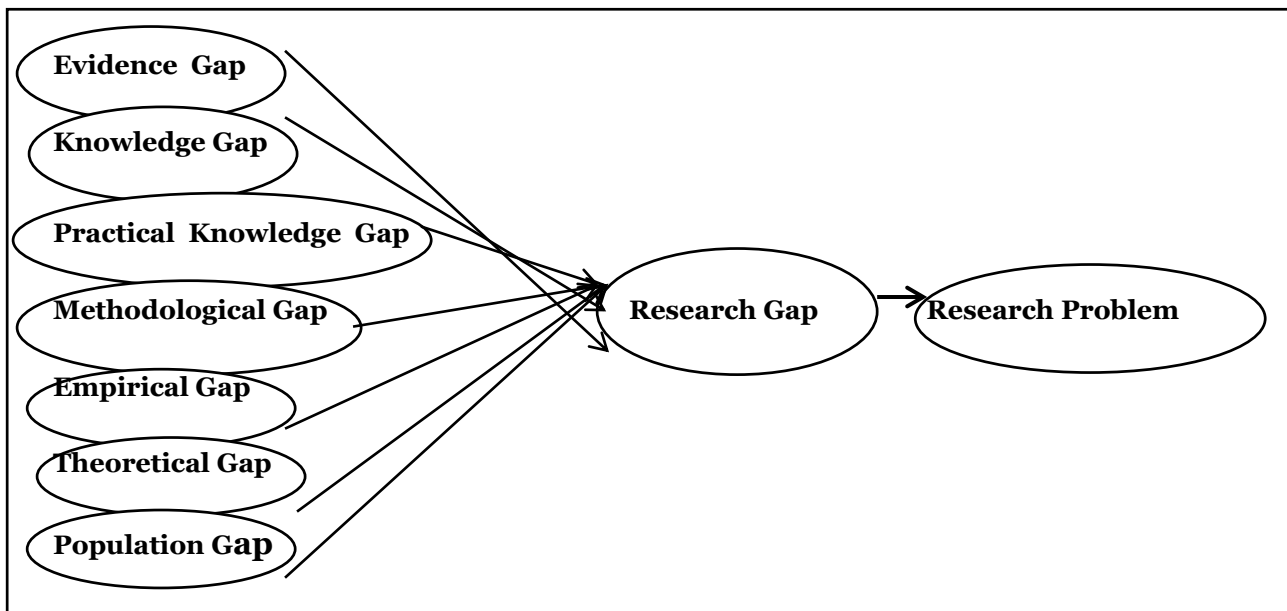


Figure 2.1: Conceptual Models of Research Gap

Source: Researcher’s Conceptual Model (2022)

- a) **Evidence Gap:** An evidence gap arises when new research findings contradict widely acceptable conclusions. The gap is in contradiction to the findings of previous research. It occurs when outcome from studies permits conclusion in their own right, but in mere sense, they are contradictory when analysed from abstract point of view. The investigation of contradictory findings begins with analyzing each research stream. Consequently, the findings from these analyses need to be harmonized so as to disclose contradictory facts (Muller-Bloch & Kranz, 2015).
- b) **Knowledge Gap:** Knowledge gap, which is also known as knowledge void gap, is mostly found in previously carried out research. It occurs under two different circumstances. Firstly, knowledge may not be discovered in the actual field of theories and literature from similar previous researches. Secondly, it can also be a situation where the findings of the research are different from the anticipated results (Muller-Bloch & Kranz, 2015).
- c) **Practical - Knowledge Gap:** This is a type of research gap that tends to be in disagreement with previous research, which can propel new research in that area. Practical-knowledge which is also known as action-knowledge occurs when the real behaviour of professionals is different from their supported behaviours (Muller-Bloch & Kranz, 2015).
- d) **Methodological Gap:** This is a type of gap, which is concerned with the disagreement that occurs simply because of effects of methodology on research outcomes. This gap addresses the disagreements with previous research methods and proffer new line of research that is different from those methods. It is imperative to note that, it is ideal to change a research method, if it is known that previous research carried out was majorly done using particular one way methods (Muller-Bloch & Kranz, 2015).
- e) **Empirical Gap:** This type of gap relate to gaps in previous researches. The disagreement has to do with the research outcomes, where such findings need to be empirically investigated. For

instance, empirical gap tends to investigate disagreements in research topics or issues that previous findings had not verified based on an empirical approach (Muller-Bloch & Kranz, 2015).

- f) **Theoretical Gap:** These are the gaps, identified in theories of previous research findings. For instance, if a particular scenario is been explained with a theoretical framework, similar to methodological gap disagreement, there might be a possibility of theoretical disagreement. Researchers could investigate, if one of those theories is superior in terms of the gap in previous research. Theoretical gaps are mostly found when investigating previous research on particular situations (Muller-Bloch & Kranz, 2015).
- g) **Population Gap:** This type of gap is common among researchers, it occurs where a particular population had been under researched. Moreover, it is a type of a gap, where it was discovered that the population used for a particular study is not a true reflection of that study or where it was discovered that the population of previous research was not adequately represented in terms of age, gender, educational qualification, ethnics (Muller-Bloch & Kranz, 2015).

Dimensions of Research Gaps Analysis

Farooq (2018) asserted that there is dearth of researches on research gap analysis; he further opined that, there is hardly any study that had analyzed research gap using any particular dimensions and propositions. However, he proposed some dimensions and propositions in analysing research gaps as shown in figure 2.2.

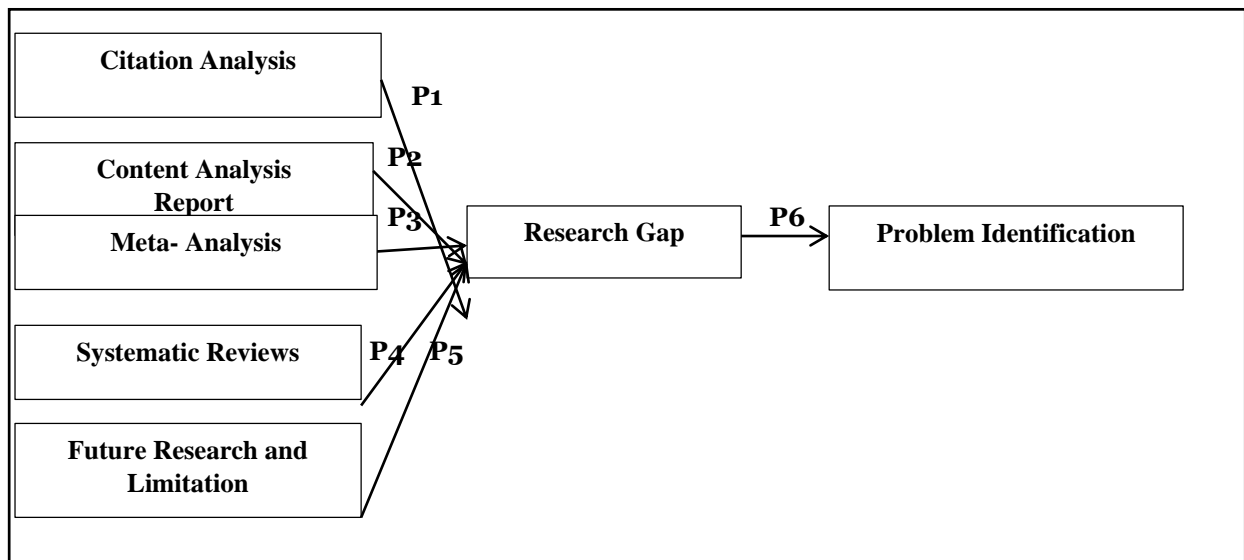


Figure 2.2: Predictors of Research Gap
 Source: Adapted From Farooq (2018)

The above propositions are explained in details in subsequent paragraphs, based on comprehensive review of literatures as opined by (Farooq, 2018).

- a. **Citation Analysis:** Citation analysis is the most appropriate way in identifying and analysing research gaps. Reviewing research papers that are often cited provided an insight into better understanding of problem identification. Farooq (2018) also viewed citations analysis as a branch of bibliometric that investigates the citations discovered in journal articles publications and resource materials. He further asserted that due to recent introduction of new techniques and searching methods, these have led to increase in numbers of studies using citation analysis, with the aid of Google Scholar, ProQuest, Emerald etc. simply by typing the keywords of researchers intended variables into these search engines.

- b. Content Analysis Report:** Content analysis reports are mostly used in qualitative research by analyzing text, images and documents so as to identify research gaps in qualitative research. Content analysis can also be viewed as class of methods at the intersection of qualitative and quantitative traditions, which are important for exploration of many important issues in management sciences but are termed difficult to study issues by management researcher (Farooq, 2018).
- c. Meta-Analysis:** Meta-analysis involved the harmonization of the findings of previous researches through the process of statistical analysis of literatures. Using a meta-analysis approach to identify research gap is a bit difficult for a young researcher that is not well grounded in meta-analysis approach. Meta-analysis approach provides an insight about a particular construct, how such construct have been measured and the findings of such construct. In addition, meta-analysis approach to research gap identification has been under-utilized as result lack of basic knowledge of meta-analysis approach among young researchers (Farooq, 2018).
- d. Systematic Reviews:** Systematic reviews are scientific research tools used for interpreting, summarizing and communicating research findings and implications of otherwise unmanageable quantities of research. A systematic review collects and analyses the literature about a research problem from various studies. Moreover, systematic reviews are quantitative in nature whereby researchers explore the literature which may support or contradict a finding depending on the nature of the study (Farooq, 2018).
- e. Future Research and Limitations:** Limitation of research is that systematic bias, that a researcher could not influence and which could have influence on research findings. Obviously, limitations and future research is a vital part of every research papers and journal articles that are still under-utilized, which are yet to be fully explored. For instance, if a researcher intends to study the relationship between compensation management and employee performance and he or she has not explored the mediating effect of top management level cadre; this can be a research gap for a future research. In addendum, efficient compilation of future research and limitations of different academic journal, articles, theses etc. and by combining all the relevant information and contents systematically can lead to research gap (Farooq, 2018).

In sum, Farooq (2018) asserted that all these propositions and dimensions are important predictors of research gaps which lead to problem identifications as shown in figure 2.2.

Framework for Identifying Research Gap

Muller-Bloch and Kranz (2015) also developed a framework for identifying a research gap based on review of different literatures, as shown in figure 2.3, in their opinion, the identification of a research gap commenced with localization of research gap which is informed by characterization, after which those gaps would be verified by scholars that might warrant presentations. The components of the framework are discussed in full details in subsequent paragraphs.



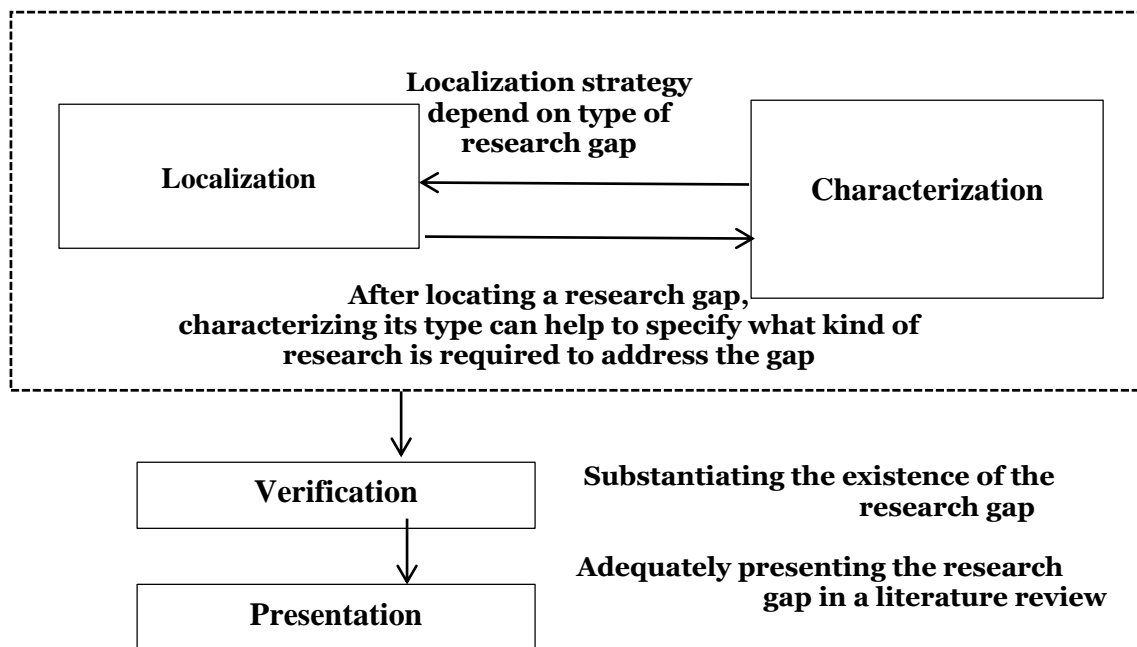


Figure 2.3: Framework for identifying research gap in literature reviews
Source: Adapted from Muller -Bloch and Kranz (2015)

- a. **Localization:** Localization of research gap commences when relevant literature is being synthesized. As researchers persistently scrutinize concepts and constructs that emerge from literature, they are already uncovering potential gaps in such literatures. Moreover, the process of localizing research gap is strongly informed by the characterization of research gap (Muller-Bloch & Kranz, 2015).
- b. **Characterization:** Characterization implies classification of research gaps due to the reasons of their existence. It is assumed that characterization is a vital aspect of identification of research gaps. Meanwhile, the two aspects of localization and characterization are inter woven; the characterization of research gaps might enable scholars to specify what kind of research is required to resolve the respective research gap (Muller-Bloch & Kranz, 2015).
- c. **Verification:** Immediately a research gaps have been localized, the next agenda is verification of such gaps. In this regards, verification implies ensuring that research gap actually exist. If a literature review is not exhaustive, there would be the need to verify the research gaps derived from the analysis, which implies that, papers that might have been overlooked may revealed that research gaps were not in existence. Verification of research gap has the advantage of enabling researchers to substantially reduce the likelihood that the respective research gaps have been closed or do not exist, which does not require an exhaustive literature review (Muller-Bloch & Kranz, 2015).
- d. **Presentation:** Research findings can be presented using two different approaches; sequential presentation and parallel presentation. Sequential presentation describes the research gaps after the synthesis, such that the research gaps are presented separately from the synthesis. Therefore, the readers can conveniently locate research gaps in the review. While parallel presentation facilitates the comprehensive disclosure of sets of information that the research stems from, which makes readers to recognize the origins of the respective research gap and to gain a better understanding of reasons for existence of such gaps (Muller-Bloch & Kranz, 2015). The presentation of research gap findings is shown in figure 2.4.

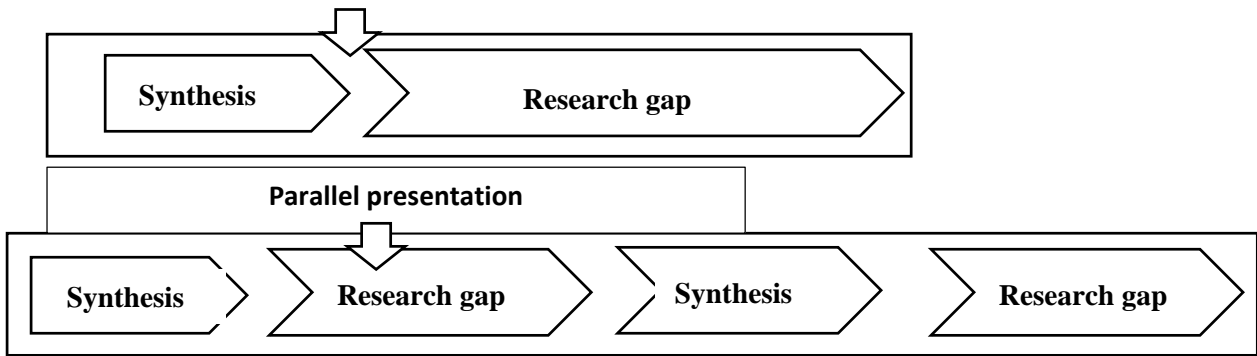


Figure 2.4: Research Gap Presentation

Source: Adapted from Muller-Bloch & Kranz (2015)

Process of Research Gap

In the opinion of Farooq (2018), there is no specific research gap process in different academic literatures reviewed. However, research gap process can follow the following processes which are; identification of the research gap, methods of identifying the research gap, feasibility of research gap, selection of research gap and expected outcomes. The processes are shown in figure 2.5

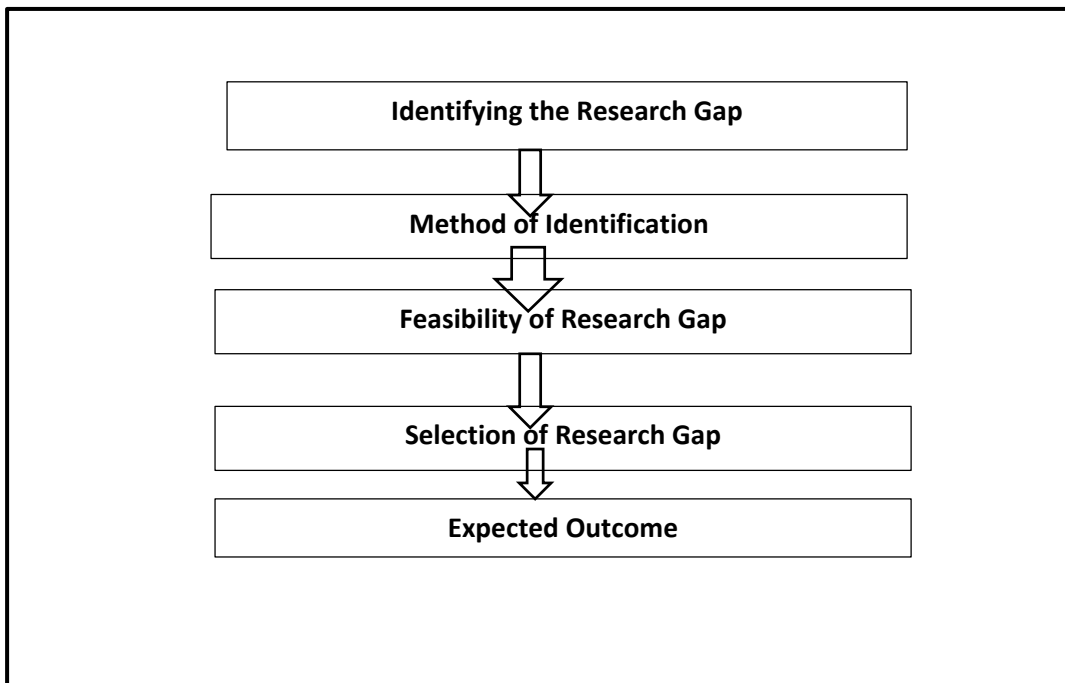


Figure 2.5: Process of research gap analysis adapted from Farooq (2018)

Source: Adapted from Farooq (2018)

The research gap process are further explained in details in subsequent paragraphs

- a. **Identifying the Research Gap:** Identification of research gap is still a subject of debates among researchers and academician, since there is no yet a consensus about the most ideal

ways of identifying research gaps. Therefore, to identify a research gap, a researcher needs to streamline his area of interest. For instance if the area of interest of such researcher is management, such researcher need to prune it down to strategic management, which can serve as a starting point. Moreover, research gaps identification involves extensive readings of different academic literatures. Moreover, the analysis of these literatures had been made easier, as result of availability of online academic literatures which can be assessed on different databases such as; Google Scholars, Emerald, ProQuest etc. (Farooq, 2018).

- b. Methods of Identifying the Research Gap:** In accordance with research practices, it is imperative to develop questions that will prompt further investigations and identification of gaps in the literature that must be researched. Firstly, the researcher needs to identify and select relevant information sources, which implies checking of books in library shelves, catalogs and databases of different internet sources. There are different ways of identifying research gaps, which include; citation analysis reports, meta-analysis reports, content analysis reports and systematic reviews, future research and limitations, as it have been discussed extensively. However, identifying the gap with meta-analysis is least preferred by researchers because of lack of knowledge and expertise. Systematic reviews are the most widely used methods for identifying the research gap whereby a researcher reviews and analyzes the literature over a period of time. For instance, a researcher can select a time period of 5 to 10 years depending upon the availability of the literature. In addition to this, there is a big gap between theory and practice; theoreticians lack the information about practical applications of research findings while the practitioners have practical experience. Therefore, it is indeed useful to look at the problem from theoretical and practical perspectives. Another way to look into the research gap is the referencing, viz., forward and backward referencing. According to Florida Atlantic University (2017), backward referencing also known as chain searching, involves identifying and examining the references or works cited in an article. It is also a way to learn about the development of knowledge on a topic. A researcher will do this in order to study the origin and development of a theory, construct, or model of interest. Another reason for backward reference searching is to identify experts, institutions or organisations that specialize in a topic of research. Forward reference searching is when a researcher identifies articles that cite a particular work after it had been published. This type of search focuses on the publications created after an initial original article or research publication. Forward reference searching helps a researcher expand their knowledge on a topic by locating follow-up studies. Afterwards, a researcher can identify new findings and developments (Florida Atlantic University, 2017).
- c. Feasibility of Research Gap:** After analyzing different methods of research gap identification, the researchers must ensure the feasibility and viability of the the research gap before embarking on the research. If the research gap seems not to be feasible, it will be appropriate to modify the research gap to suite the context. If the identified gap lacks novelty due to confusing available literature, then step one and step two needs to be modified. Moreover, feasibility of a research gap depends out rightly on availability of both primary and secondary data, enough relevant literature and relevant statistical tools (Farooq, 2018).
- d. Selection of Research Gap:** Selection of a good research gap depends on several factors, among it are the relevance and importance of such gap to the field. Moreover, selection of research gaps also depends on the researcher's personal inclination, researcher's in-depth knowledge, and availability of relevant literatures. Also, the selection has to do with the area of interest of such researcher or his area of specialization and its contribution to such field of endeavor. For instance, if the research gap identified is constructive deviance, and there are limited literatures available on databases of internet sources, such researcher can look towards others sources such as books and other resources. In addition to these, selection of good

research gap can be likened to decision making process where it involves a selection from different alternatives (Farooq, 2018).

- e. **Expected Outcomes:** A researcher must be able to conceptualize an expected outcome of his or her research gap, if the gap identified did not lead to any expected outcome, then the research gap identified is vague and indefinite. The researcher must have a prior knowledge of the expected outcomes, and its expected contribution to knowledge, if for instance, the research gap do not have any contribution to knowledge, then the entire research gap processes need to be revised.

2.5 Techniques of writing Research Gaps in Research Proposal

Miles (2017) proposed some format of writing research gaps in research proposals. He emphasized that; researchers must endeavor to reiterate the essence of the study and the intended contributions of such study to literature. The statement should follow each other logically from the text that identifies gaps, inconsistencies and observed conflicts in literature. These methods can be explained in illustrations 1 and illustration 2.

Illustration 1: The study tends to expand ----- by addressing the gaps in ----- . The study investigated the impact or effects of four ----- (1) -----, ----- (2) -----, ----- (3) -----, and ----- (4) ----- . In addition, among ----- are examined (Miles, 2017).

Illustration 2: The researcher identified four major gaps in the previous research. Firstly, the researcher identified an apparent theoretical gap in the previous research concerning ----- . The previous research has addressed several aspects of -----: ----- (1) ----- (cite two to three related articles), ----- (2) ----- (cite two to three related articles) , ----- (3) ----- (cite two to three related articles).

Secondly, based on several review of previous study on the subject matter, there is a gap with ----- . This population category was under-researched in the previous studies. Moreover, ----- encompasses several unexplored dimensions that lately have attracted research attention in other disciplines (cite two to three related articles or publications).

Thirdly, the researcher identified an apparent knowledge gap in the previous study concerning ----- . Moreover, there was conflict and contradiction in the findings of previous studies which do not address the subject of ----- . Some of these unexplored ----- conflictions in the dimension of previous study seems to be vital and worthy of further investigation or verification in the context of ----- . A further investigation of these facts is crucial because ----- .

Finally, the researcher also identified an empirical gap in the previous study. There is a dearth of research in previous study on the subject matter. The previous researches have focuses primarily on ----- . In view of this, little has been done on ----- to properly examine the problem. Consequently, this study intended to provide a new inquiry on management practices with federal government or state government by addressing the gaps in ----- . The study examined the impact of four: ----- (1) -----, ----- (2) -----, ----- (3) ----- and ----- (4) ----- (Miles, 2017).

Oyeniya et al., (2016) also laid down some specific steps that can be adopted, when formulating research gaps, which are discussed below:

1. **Establish a research territory:** Firstly, the researcher need to introduce and review previous studies on the subject matter, this will enable the researcher to have a summary of previous studies. This can be presented in the review as:
 - i. The previous review of the subject ----- was centered around -----
 - ii. The question on ----- has been viewed in recent times
 - iii. Earlier researches suggested that -----

- iv. The methodology or statistical tools initially used adopted ----- (Oyeniya *et al.*, 2016)
2. **Establish a niche:** A niche involves creation of an area of interest. After thorough review of past studies, and having identified what was not done by previous studies, hence the intended study can be situated therein. This can be showcase as follows:
 - i. Previous work on the subject matter focused on ----- and ignored -----
 - ii. Past studies concentrated on ----- as against -----
 - iii. Although, a lot of work has been carried out on -----, however, little attention has been channel towards -----
 - iv. Researchers had restricted their previous studies towards ----- and have not conceptualized ----- (Oyeniya *et al.*, 2016)
3. **Occupy the niche:** Having identified the gap, the next thing to do, is how to fill the unfilled gaps. This will now be the basis of the current study, this where the research problems and objectives can be formulated. This can be encapsulated as follows:
 - i. The aim of this paper is to -----
 - ii. The study is designed therefore to -----
 - iii. The objective of this study is to investigate ----- (Oyeniya *et al.*, 2016)

Methodology

After the reviewed of different literatures and having discovered different methods of identifying research gaps, this study adopted a simplified ways of identified gaps in some selected articles. Content analysis was carried out on fifteen articles paper review from two journal publications (Christopher University Journal and Kaduna State University Management Journal of Management Science) as shown in table 2.1, so as to know different types of research gap identified in their studies. Moreover, the study adopted simple random techniques in the selection process.

Table 2.1: Examples of different research gap found in some selected journal article publications

S/N	ARTICLE TITLES	AUTHOR (S)	DATE OF PUBLICATION	TYPES OF GAP (S)	REMARKS
1	Emotional intelligence and performance: A study of academic staff of selected state universities in Nigeria.	Olajide, O. T.	2019	Empirical gap & Population gap.	Empirical gap was substantially filled considering the fact that majority of studies carried out was done in foreign countries. Moreover, the population gap was also adequately filled for covering some five selected universities in South Western part of Nigeria
2	Micro-finance banks services and small and medium enterprises performance.	Idris, B. M. and Dabo, Z.	2019	Empirical gap	The empirical gap was slightly filled as it addresses the inconsistencies with the previous findings
3	Impact of remuneration discrimination on performance in the Nigeria public sector.	Chukwuma, N. N.	2019	Empirical gap	The empirical gap identified in the study was slightly filled
4	Effects of exchange rate movement on inflation rate in Nigeria.	Ojapinwa, T. V. and Oluwasemire, C.	2019	Empirical gap	The empirical gap identified was adequately filled as previous studies do not factor in deferential impact of exchange rate movement and consumer and producers of goods and services
5	Effects of entrepreneurship development on market opportunities recognition of graduate students in University of Lagos.	Ojapinwa, A. F.	2019	Population gap	The population gap, was identified, but was not adequately filled, as the sample size was under-researched
6	Using the normative factors of behavioural finance to	John, N. A., Sani, D. and Afolabi, H.O.	2019	Population gap	The population gap was adequately filled as the study covered both the private and

	determine the retirement savings of the Nigerian workers.				public sectors across the six-geo political zones in Nigeria
7	Consumer personality traits and brand selection: A study of perfume brands in Lagos state.	Ladipo, K. P., Awoniyi, M. A., Oguntoyinbo, C. A. and Omoera, C. I.	2019	Methodological gap & Population gap	The methodological gap identified in the study was substantially filled. In addition, the population gap was slightly filled as the study was under researched
8	Influence of reward management on organizational commitment among academic staff in selected universities in Osun State, Nigeria.	Solomon, O., Ajakaye, A. T. and Abidoeye, M.	2021	Empirical gap	The empirical gap identified in the study was not filled, as the researchers failed to highlight what previous researchers failed to do
9	The use of TV commercials in retention of consumer patronage: A study of Airtel Nigeria.	Mbaka, C. A. and Udeh, K.	2021	Population gap	The population gap was slightly filled as the study was under researched, as the study only focused on shop owners in Computer Village of Ikeja, area of Lagos State who barely have time for watching of television
10	Green human resource management and organizational productivity in manufacturing industry in Nigeria.	Omoyele, O. S. and Akpor-Robaro, M. O. M.	2021	Methodological gap	The identified gap was slightly filled, as the researcher adopted convenient sampling technique which could hardly take cognizance of the five manufacturing companies selected by the researchers, while multi-stage sampling techniques could have been better
11	Organisational change and employee's performance in Nigerian Banking Industry.	Eyanuku, J. P.	2021	Population gap	The population gap identified in the study was slightly filled, as study failed to derived an appropriate sample size that represents each segments of the population

12	Presenteeism and staff productivity of selected manufacturing firms in Lagos State, Nigeria: A study of Glaxosmithkline consumer Nigeria PLC.	Oyinloye, J. O. and Omotayo, O. A.	2021	Knowledge gap & Population gap	The knowledge gap was extensively analysed by examining challenges associated with the subject matter, however, the population gap was slightly filled, as the study under researched the study by using only Glaxosmithkline Consumer Nigeria as a case study, which could not be used to represent the interest of other manufacturing firms in other sectors
13	Market characteristics and customers' patronage in Ogun State Nigeria	Oyefesobi, O. O. and Akintunde, S. O.	2021	Knowledge gap & Population gap	The knowledge gap was substantially filled as the study extensively analysed different market characteristics that affects customers' patronage. Moreover, the population gap was adequately filled as the study actually dissected the market components into different segments, so as to have a proper representations
14	Foreign remittance and inclusive growth in Nigeria.	Ologundudu, M. M.	2021	Empirical gap	The identified gap was adequately filled as the researcher extensively analysed previous research works
15	Impact of entrepreneurship development on Nigeria economic development: A study of Nasarawa State.	Kadiri, K. I., Ibrahim, M.G. and Daha, T. A.	2021	Population gap	The identified gap, was not adequately filled, as the study was under researched, by focusing on pure water firm, automobile firm and cyber café business centres

Source: Researcher's Computation (2022)

Having analysed fifteen different articles publication as it was shown in table 2.1, it was realized that population gap was majorly found in nine studies of the reviewed articles which implied that some of the reviewed article were under researched, while some were adequately researched. Also, six studies among the reviewed articles showed that empirical gap was discovered in their studies which implied that, these studies empirically investigated what the previous researchers could not do, while few did not. Moreover, two of the reviewed articles showed that methodological gap was discovered in their studies, which implied that wrong methods were adopted in course of their studies. In addition to these, two studies revealed that knowledge gap was discovered in the reviewed articles.

Conclusion

In view of this study, it can be concluded that research gaps can be identified through different online data bases such as; Google Scholar, ProQuest, Emerald, Scopus and other scholarly databases. Moreover, new researcher can adopt citation analysis in identifying research gaps, by extensively checking commonly cited work on interested topics. In addition to this, the study adopted a systematic literature review of contemporary research articles on research gaps, so as to have a conceptual understanding, which will assist new and novice researchers when confronted with the problems of research gaps identifications. The study extensively reviewed various types of relevant literatures which new researchers could undertake so as to identify gaps in the literature. It can also be concluded that this study would provoke a deeper reflection and discussion of research gaps among new researchers in the academic community.

Recommendations

In view of the above study, here are the recommendations:

- i. That new researchers should streamline their area of interest in research gap identifications.
- ii. It was also recommended that new researchers should endeavor to localize their research gaps by domesticating it.
- iii. Researchers must ensure that such research gaps are achievable.
- iv. It was also recommended that all notably research gap should be well investigated.
- v. Moreover, it was recommended that research gaps such as empirically gap, methodological gap, population gaps amongst others should be properly conceptualized and design for proper understanding.

Contribution to knowledge

Having seen from this study, it can be inferred that, there is dearth of study on research gap identification. It was also noted that, there was scantiness of recent literatures on research gaps; therefore, the study had been able to achieve the objective of the paper by analyzing and reviewing different literatures on research gaps identification. Moreover, the study develop also research gap model that shows the interactions among different types of research gaps when identifying a research gap, which will help when formulating a research problems and research questions.

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