

Mixed-Methods Research in Public Administration: Study of Selected Post Graduate Project in Public Administration Department Adamawa State University, Mubi – Nigeria

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Abstract

This paper extensively examines the utilization of mixed-methods research within postgraduate public administration projects at Adamawa State University, Mubi. The primary focus is on understanding the prevalence, benefits, and challenges associated with employing mixed techniques in academic endeavors. With a comprehensive total population of 2370 postgraduate projects drawn from diverse academic programs, including masters of science in public administration, postgraduate diplomas, and doctorates in philosophy, this study offers a robust foundation for analysis. Through the application of Taro Yamane's sample size Formula $n = \frac{N}{1+N(e)^2}$, a sample of 400 projects was randomly selected for the investigation. Simple percentage was used to analyze the data collected. Findings from the study unveil a nuanced landscape where qualitative methods continue to dominate, yet there is a discernible utilization of blended methods. This trend reflects a growing recognition of the complementary nature of qualitative and quantitative approaches in generating comprehensive insights. However, alongside the benefits come formidable challenges, particularly concerning the selection of appropriate research strategies and the delicate task of striking a harmonious balance between qualitative richness and quantitative rigor. By shedding light on these dynamics, this paper not only contribute to the academic discourse surrounding mixed-methods research but also provides valuable insights for students, educators, and researchers alike. It underscores the importance of methodological versatility and the need for a nuanced understanding of research methodologies in the context of postgraduate academic pursuits. Ultimately, this study serves as a resource for enhancing the quality and depth of research within the field of public administration and beyond.

Keyword: Administration, research, mixed research, public administration, postgraduate

1.0 Introduction

Researches are systematic ways of making inquiries about a given phenomenon with the aim of providing an amicable solution to address it (Babbie, 2021). Problems are an inevitable part of

human life that occurs on a daily basis and in different phases, which can be identified and addressed through research (Creswell & Creswell, 2018). Research methods are the procedures, techniques, and manners in which research is

conducted (Neuman, 2014). A research method can be understood as a way to systematically solve or answer a research problem. Thus, essentially, it can be understood as a process of studying how research is done in a scientific manner (Bryman, 2016).

The social science discipline, especially public administration, is concerned with the analysis of human behavior, which requires developing and using systematic and causal relationships between these behaviors (Johnson & Reynolds, 2020). Researchers in this field employ statistical tools to design surveys, make inferences from a sample, and measure the relationship or causality of variables in the same vein, using non-numerical data to establish patterns of relationship between the variables (Patton, 2015). Quantitative methods examine numerical data and often require the use of statistical tools to analyze the collected data. This allows for the measurement of variables, and the relationship between them can then be established. This type of data can be presented using graphs and tables (Fowler, 2014). Research method also refers to the tools that one uses to do research. These can be quantitative, qualitative, or mixed (Tashakkori & Teddlie, 2003).

The qualitative method deals with non-numerical data and focuses on establishing patterns, while the mixed method is composed of both quantitative and qualitative research methods. Previous research studies (Denscombe, 2008; Ngulube, Mokwatlo, & Ndwandwe, 2009; Smith, 2012; Bentahar & Cameron, 2015; Maarouf, 2019) show that the utilization of mixed methods research in various disciplines such as psychology, health, education, and sociology is gaining attraction. Hence, this paper is an attempt to analyze the extent to which postgraduate projects in the public administration department make use of mixed methodologies in conducting their research.

Research Questions

The following research questions are here to guide the study:

- i. What is the applicability of mixed-methods research in post-graduate public

Administration research in Adamawa State University, Mubi?

- ii. To what extent does mixed-methods research enhances post-graduate research in public administration Adamawa State University, Mubi?
- iii. What are the challenges facing the applicability or conduct of mixed-method research in post-graduate public administration research Adamawa State University, Mubi?

Objective of the Study

The main objective of this study is to examine the applicability of mixed-methods research in post-graduate public administration research at Adamawa state university. In specific terms, the study is designed to:

- i. Determines the applicability of mixed-methods research in post-graduate public administration research at Adamawa state university.
- ii. Examine the extent in which mixed method research enhances postgraduate public administration researches in Adamawa State University, Mubi
- iii. Identified the challenges faced by student in the applicability and conduct of mixed-method research in post-graduate public administration research.

Reviewing Historical and Conceptual Foundations

Evolution of Mixed Methodology Research

According to Ngulube (2009), the notion of integrating two research methodologies initially emerged in the 1960s. Migiro and Maganngi (2011) attribute the inception of multi-method research in psychology to DT Campbell and DW Fiske in 1959 with their work titled "Convergent and Discriminant Validation by the Multi-trait Multi-method Matrix." Maarouf (2019) notes that during the paradigm war of the 1970s, proponents of either qualitative or quantitative methodologies staunchly believed in the superiority of their approach. Concurrently, TD Jick effectively pioneered the fusion of qualitative and quantitative methods in 1979 through the incorporation of interviews.

In a study titled "Mixing Qualitative and Quantitative Methods: Triangulation in Action," observations and survey questionnaires were employed to analyze a research problem (Migiro & Magangi, 2011). The persistent belief stemming from the 'paradigm conflict' was that qualitative and quantitative methods were incompatible (Maarouf, 2019). Ngulube, Mokwatlo, & Ndwandwe (2009) discuss how this led to the emergence of the "incompatibility thesis." However, by the 1990s, as researchers began integrating qualitative and quantitative approaches in single studies, this myth gradually dissipated.

The advent of mixed-methods research introduced a new methodological approach where positivism and constructivism no longer stood in opposition (Ngulube, Mokwatlo, & Ndwandwe, 2009). This suggests that the traditional divide between qualitative and quantitative research methodologies has become less discernible.

The 'paradigm war' vanished, bringing with it a new era in research where qualitative and quantitative approaches were given equal standing due to the application of pragmatism as a new paradigm in mixed methods research (Migiro & Magangi, 2011). However, Ngulube, Mokwatlo, & Ndwandwe (2009) contend that because pragmatism centers on using whatever 'works best' in research, it cannot be classified as a paradigm. According to Denscombe (2008), mixed-methods research is driven by practical issues and demands rather than a clear philosophy. This suggests that the components of both quantitative and qualitative methods are prone to fragmentation and inconsistencies. Furthermore, "numerous scholars have cautioned against mixed-method designs for fear that one or the other design would be diluted by trying to do too much in a single study" (Ponterotto, 2013). Following this, however, Ngulube, Mokwatlo, & Ndwandwe. (2009) say that convenience and expediency should not be taken into consideration when deciding whether to use mixed-methods research; rather, the decision should be based on the objective and applicability of the research methodologies to study a research problem. Maarouf (2019) highlights that pragmatism offers a clear philosophical rationale for doing mixed-methods research since it promotes the enhancement of action via scientific knowledge to provide a practical impact. Pragmatism also

maintains that knowledge can only be created by action, implying that action is a catalyst in the creation of knowledge.

Types of Mixed Research Methods

Smith (2012) discusses the causes of the scarcity of mixed-methods research. First off, it seems that researchers are not very clear about what mixed-methods research is. Second, there is an inability to integrate qualitative and quantitative research approaches into one study. Third, a deficiency of the resources needed to conduct a study using mixed approaches for these reasons; Almalki (2016) suggests that providing adequate explanations of the typologies will enable comprehension of the mixed-methods research. Concurrent design, explanatory design, exploratory design, and embedded design are the four main typologies of mixed-methods research. We go over these mixed-approach designs in brief below.

Concurrent Design

Concurrent design, sometimes referred to as triangulation design, aims to provide complementary data collection for research in a single project. "the qualitative and quantitative data is collected around the same time, and the weighting priority is usually equal across approaches" (Ponterotto, 2013) is characteristic of concurrent design. When interpreting the results, the simultaneous collection of qualitative and quantitative data is further integrated (Jemna, 2016). Due to the simultaneous collection of quantitative and qualitative data, this design is recognized as single-phase research (Creswell & Zhang, 2009). The primary benefit of this strategy, according to Almalki (2016), is that it enables complementary data collection from multiple sources using a variety of techniques. However, Almalki (2016) points out that in order to handle contradictory results within data sets, the adoption of this approach in research requires coordinated efforts and skills. Furthermore, according to Terrel (2012), comparing two distinct data sets may be quite difficult, especially if differences are found.

Explanatory Sequential Design

According to the explanatory sequential design, the researcher should first gather and analyze quantitative data before moving on to gather and analyze qualitative data in order to further aid in the explanation of quantitative results (Creswell & Zhang, 2009). Furthermore, because quantitative data is given greater weight, Creswell and Zhang (2009) claim that this approach is quantitatively oriented. Ponterotto. (2013) contend that because a quantitative component is prioritized, the quantitative strand comes before the gathering of qualitative data, supporting this viewpoint. Explanatory sequential design is simple to deploy and allows for the maintenance of a study focus because each data set builds upon the previous one. However, this approach's drawback is its time-consuming nature and the challenge of finding volunteers who can provide pertinent information (Almalki, 2016). In this context, Creswell and Zhang (2009) clarify that at the initial stages of the investigation, to choose individuals for the qualitative component and create follow-up questions for the second phase, the researcher uses data from the quantitative strand. Since the main goal of this design is to provide a broad explanation for the first phase's results, the researcher must create a connection between the methods used for the qualitative strand's data collection and the quantitative component's data analysis. This implies that in order to fill in such a gap using qualitative data sets, a researcher should be able to recognize gaps in quantitative data sets.

Exploratory sequential design

The sequential exploratory approach, according to Smith (2012), is divided into two stages. The researcher gathers and examines qualitative data at the initial stage. During the second stage of the investigation, the investigator collects and examines numerical data. Since qualitative data gathering and analysis come before quantitative data collection and analysis, this design is essentially the antithesis of explanatory sequential design (Almalki, 2016). The exploratory sequential approach is appropriate for investigating constructs that are not sufficiently covered in the literature or that are conceived, assessed, or poorly understood. In the second stage of data collection, the researcher must look at qualitative findings that could help develop a quantitative thread and then determine

whether the findings can be applied to the target population as a whole (Creswell & Zhang, 2009). Terrel (2012) asserts that, compared to concurrent design, the phases of the exploratory sequential approach are more distinct and well-defined, making it easier to follow. Unfortunately, this approach may take a lot of time, especially when it comes to gathering data and analyzing it so that both the qualitative and quantitative strands receive equal weight. Furthermore, Almalki (2016) points out that research participants could change their minds or lose interest in participating in the second round of data collection, which could have an impact on the quantitative strand.

Embedded Design

The distinction between the embedded and concurrent designs, which were previously discussed, is that the embedded design uses nested or embedded data sets of either a qualitative or quantitative approach. This demonstrates that the research is guided by a single overarching approach and that there is a secondary method that supports the primary method (Smith, 2012). According to Almalki (2016), the embedded design enables researchers to complement the primary technique of inquiry with either a quantitative or qualitative approach in order to fully comprehend a phenomenon. Gaining a comprehensive grasp of the research topic is the goal of embedded design, which can only be accomplished by using the most common method of data collection. Simultaneously, the embedded design can be employed to explore diverse study inquiries or gather information from several target groups or tiers within an establishment (Terrel, 2012). Furthermore, as stated by Terrel (2012), the strategy's power lies in the researcher's ability to simultaneously acquire two distinct data sets, suggesting that multiple viewpoints on a research subject can be obtained through the collection of both quantitative and qualitative data. Table 1 on the next page provides more details on each of the four main mixed-method designs covered above.

Benefits and Limitations of Mixed-Methods Research

Researchers in the field of public administration may be able to gain from the implementation of well-planned mixed-methods research. For

example, researchers can improve the caliber of their findings by complementing qualitative and quantitative methodologies. In addition, triangulation can help researchers gain a deeper knowledge of a research phenomenon (Ngulube, Mokwatlo, & Ndwandwe 2009; Maarouf, 2019). Triangulation, in the words of Bentahar and Cameron (2015), "allows the researcher to validate and support the results relative to the same phenomenon with different methods and to ameliorate internal and external validity." the results of one research method can be effectively used to validate the results of another research approach in this way. Furthermore, through corroboration and convergence, researchers employing mixed-methods research can provide strong evidence to support their findings, according to Migiyo and Magangi (2011). Above all, employing both qualitative and quantitative research methodologies can contribute to a deeper comprehension and awareness of the research topic. By employing mixed-methods research, investigators might detect paradoxes or contradicting results that would necessitate rewording research questions. Additionally, the researchers have a fantastic opportunity to expand the study's emphasis and scope (Onwuegbuzie, 2011). Raimondo and Newcomer (2017) state that a mixed-methods study "enables the researcher to

look at a particular problem or research subject through multiple perspectives, thereby avoiding common researcher biases, the oversimplification of complicated issues, and methodological determinism." remarkably, leech and Onwuegbuzie (2010) list four key advantages of using a mixed-methods strategy. First, through sample optimization, mixed-methods research can support participant enrichment. Second, by employing mixed methods, researchers may be able to improve the instrument fidelity, appropriateness, and effectiveness of data gathering tools. Thirdly, in order to maintain treatment integrity, especially in research on counseling, researchers can make sure that mixed-methods study interventions are carried out according to schedule. Fourthly, by utilizing qualitative data to improve the interpretation of quantitative findings and quantitative data to support qualitative findings or analyses, researchers using mixed methods can strengthen the noteworthy findings. When conducting mixed-methods research, researchers must overcome certain obstacles (Almalki, 2016). Smith (2012) and Maroouf (2019) highlight that mixed-methods research demands additional dedication and resources, including financial and temporal support, to ensure seamless success, even when the researcher may be experienced.

Below is the tabulation of additional elements of four mixed methods designs

Table 1 Showing Additional Elements of Mixed Method Research

Mixed methods designs	Concurrent design	Explanatory sequential design	Exploratory sequential design	Embedded sequential/concurrent design
Type/example of mixed methods question	Quantitative and qualitative results compared: do the quantitative and qualitative results converge, diverge, or present contradictory evidence?	Qualitative data collection helps explain quantitative results: how do the qualitative findings help to explain the quantitative results in more depth?	Initial qualitative exploration leads to improve quantitative data collection and results: can the qualitative themes be generalized to a sample of a population?	A supportive database enhance a major database: how does qualitative data added to an experiment improve/enhance the experimental findings?
Designs suitable	Qualitative: grounded theory, case study quantitative: survey, correlational, experiment	Quantitative: survey, correlational, experiment qualitative: case study, grounded theory	Qualitative: case study, phenomenology quantitative: survey, correlational	Quantitative: experiment, correlational qualitative: case study, phenomenology
Validity/methodological issues	Unequal sample sizes; divergent, contradictory information; lack of parallel quantitative and qualitative measures	Inadequate selection of participants for follow-up; inadequate use of quantitative results for follow-up	Inadequate use of quantitative results in qualitative follow-up; using less-than-adequate rigorous procedures in quantitative follow-up (e.g. poor scale development)	Concurrent design (issues attendant to concurrent design, bias introduced); sequential design (issues attendant to sequential designs, bias introduced)
Advantages of design	Makes sense intuitively; efficient for data collection; provides multiple "angles" on a problem	Easily conceptualized in phases; manageable for single researcher; quantitatively driven	Easily conceptualized in phases; manageable for single researcher; qualitatively driven	Permits use of qualitative within experimental designs; improves major design (e.g., experiment, correlational study)
Disadvantages of design	Quantitative and qualitative results may diverge, be contradictory; extensive data collection	Phases take time; not qualitatively driven	Phases take time; not quantitatively driven	Devalues supporting database in supporting role; new, underconceptualised

Source: Cresswell (2009)

Researchers also need to be equipped with the necessary abilities, know-how, and experience to apply both qualitative and quantitative research approaches. Stated differently, researchers who opt to conduct mixed-methods research ought to possess a thorough understanding of both qualitative and quantitative methodology. Comprehending the designs, paradigms, data collection methods, sampling strategies, analysis, and data quality standards linked to every research approach is necessary for this. Addae and Quan-baffour (2015) point out mixed-methods research's shallow and incompatible integration of quantitative and qualitative results. The ontological and epistemological differences between quantitative and qualitative methodologies serve as the foundation for this argument. To elaborate on the previous point, Ponterotto (2013) suggest that mixed methods designs often overshadow qualitative research, propelling quantitative research forward in a positivist and ethical epistemological framework, but in a distinct way. As stated differently, the overemphasis on quantitative findings can unintentionally degrade qualitative research. Cameron (2011) suggests that despite the difficulties outlined above, researchers using mixed methods should be adaptable and creative, with a greater range of research abilities than those required for single-mode studies. Before vigorously defending their methodological decisions, they must clearly express their philosophical underpinnings and paradigmatic stance and show that they have a solid understanding of mixed-methods study designs and methodological considerations. The ability to apply the integration principles to methodologies and data analysis, as well as skill and competence in the quantitative and qualitative approaches selected must be demonstrated."

Empirical Review

In their study titled "Mixed-Methods Research: Types, Challenges, and Criticisms," Dawadi, Shrestha, and Giri (2021) adopted a qualitative design. Their findings highlight significant challenges faced by researchers, particularly in determining the most suitable mixed method for a given research project. Novice researchers often struggle with this decision, as they may not fully grasp how blending methods can enhance data analysis and result interpretation. Additionally, maintaining a balance between two research traditions presents a challenge, as researchers may tend to favor the method they are more comfortable with.

Stylianos and Dimisrious (2022) explore the significance of mixed research methods in political science and governance in their paper titled "Mixed Research Methods in Political Science and Governance: Approaches and Applications." By analyzing specific examples and outcomes, they aim to assess the importance of mixed methods in understanding social problems and transitions, particularly in the post-COVID-19 era. Their analysis demonstrates the utility of mixed methods in addressing social issues that require attention from policymakers in terms of public policy planning and implementation, as well as enhancing effectiveness and performance in local and regional governance contexts. Additionally, they highlight the potential of mixed methods for measuring governance effectiveness in non-governmental settings.

In his paper titled "Application of Mixed Methods Research in Public Administration: Opportunity Missed or Taken," Hlongwane (2020) examines the extent to which public administration scholars utilize mixed methodology in their research. Through secondary data analysis of 239 scholarly peer-reviewed journal articles published in 2018 and 2019, he evaluates the prevalence of mixed methods in public administration research. His analysis suggests that there is an opportunity for public administration scholars to benefit from the rigorous application of mixed-

methods research, as it can provide comprehensive insights into various subjects of investigation. Thus, he emphasizes the importance for public administration schools to consider integrating mixed methods into their research practices.

Methodology

This paper adopted a qualitative research design for the study. The population of this study consists of two thousand three hundred seventy (2370) postgraduate projects in the public administration department of Adamawa State University, Mubi. The population comprised all postgraduate projects of different programs, which are masters of science, master's in public administration, postgraduate diploma in public administration and doctor of philosophy, all in public administration from the beginning of the program in 2009 to date. The study adopted random sampling techniques using Taro Yamane to determine the sample size of four hundred (400) Projects in which mixed-methods designs were used and was analyzed using the simple percentage method.

Taro Yamane Sample Size Calculation

$$\text{Formula } n = \frac{N}{1+N(e)^2}$$

Where n = sample size, N = population size and e = margin of error (0.05)

$$\frac{2370}{1 + 2370(0.05)^2}$$

$$N = \frac{2370}{1+2370(0.0025)}$$

$$N = \frac{2370}{2371(0.0025)}$$

$$N = \frac{2370}{5.9275}$$

$$N = 399.831 \approx 400$$

Data Presentation and Discussion

This section discusses and provides the results of mixed methods research and public administration studies, with an emphasis on a postgraduate project in the department of public administration at Adamawa State University, Mubi.

Table 2: Postgraduate Project Assessment of Public Administration Department Adamawa State University Mubi with Regard to Methodology Applied

Years	Quantitative Methodology	Qualitative Methodology	Mixed Methodology	Collective
2009-2012	10 (2.05%)	78 (19.05%)	48 (12.00%)	136 (34.00%)
2013-2017	15 (3.755%)	70 (17.05%)	59 (14.75%)	144 (36.00%)
2018-2022	25 (6.25%)	33 (8.25%)	62 (15.05%)	120 (30.00%)
Total number of projects research method applied	50 (12.05%)	181 (45.25%)	169 (42.25%)	400 (100%)

Source: author's compilation (2023)

In the public administration department's postgraduate program at Adamawa state university mubi, table 1 presents the project's evaluation based on the methodological choices used. 400 projects in all were reviewed between 2009 and 2022, with a

four-year timeframe taken into consideration. To begin with, out of the 136 (34.00%) projects

completed between 2009 and 2012, 10 (2.05%) used a quantitative approach, 78 (19.05%) used a qualitative methodology, and 48 (12.00%) used a hybrid method.

36.00% of the 400 projects that were looked at between 2013 and 2017 comprised of 144 projects. Table 2 shows that 15 research projects (3.75%) employed a quantitative methodology, whereas 59 (14.75%) and 70 (17.05%) used a qualitative approach. It appears from this those researchers who wrote projects during these years gave less weight to mixed and quantitative approaches. It is hardly unexpected that the qualitative methodology was given preference over the other two approaches. Wessels and Thani (2014) expressed worry that because public administration experts are familiar with the qualitative technique of inquiry, they find it simpler to apply it. This significant finding is consistent with their concerns. Table 2 presents statistics confirming that 120 research projects, or 30.00% of the 400 total research projects evaluated, were completed between 2018 and 2022. Regarding this, it was observed that 25 research projects (6.25%) employed a qualitative technique, while 33 projects (8.25%) utilized a quantitative methodology, and 62 projects (15.05%) used a hybrid methodology. Combining qualitative and quantitative approaches suggests that some researchers are still involved in a "paradigm war" that aimed to divide methodologies into quantitative and qualitative domains, as stated by Maarouf (2019).

General Trend In Terms Of Use of Mixed Methods Research in Postgraduate Public Administration Project in Adamawa State University Mubi

Table 1 presents the results of the analysis, which indicate that 181 (45.25%) of the research projects utilized qualitative approach, whereas 50 (12.05%) used quantitative methodology. Furthermore, the results show that out of the 400 research projects in total, 127 (31.75%) used mixed methodologies research. The reason mixed methods research is not as popular as qualitative inquiry in postgraduate public administration research projects is yet unknown. This result supports the claim made by Raimondo and Newcomer (2017) that public administration underuses mixed methods research. The scarcity of papers employing mixed methods research raises questions regarding public administration scholars' expertise with this mode of investigation. In order to improve the abilities and understanding of integrating both quantitative and qualitative techniques of inquiry in a single study,

it could be necessary to consider the question of proper training.

The 169 research projects (42.25%) that used mixed methods research amply demonstrated how much postgraduate public administration students at Adamawa state University, Mubi used mixed research methodology in their studies. Mixed methods can be helpful in studying social issues that require particular attention from policymakers in terms of planning and implementing public policies as well as local and regional governance issues in terms of efficacy and performance enhancement, as demonstrated by Stylianos, I., and Dimisrious, K. (2022). The effectiveness of governance in non-governmental environments, which are a primary focus of postgraduate public administration research projects, can also be measured with mixed methods.

Summary of Findings of the Research Study

Findings Based on Research Questions shows that:

i. *Extent of Enhancement by Mixed-Methods Research in Post-Graduate Research in Public Administration:*

The findings suggest that mixed-methods research significantly enhances post-graduate research in public administration. A notable proportion of projects employed mixed methodologies, indicating a deliberate effort to combine qualitative and quantitative approaches. This integration allows researchers to explore research questions from multiple perspectives, leading to more comprehensive and nuanced insights into complex public administration issues.

ii. *Research Using Mixed Methods:*

Research Using Mixed Methods makes a significant contribution to the discipline by providing a comprehensive grasp of complex topics. Mixed-methods projects were more suited to tackle difficult social issues, guide policy decisions, and assess the efficacy of governance. Combining qualitative and quantitative methods improved the research process by allowing scientists to validate conclusions and triangulate data, which increased the reliability and validity of study findings.

iii. *Difficulties with the Conduct or Applicability of Mixed-Method Research:*

A number of issues with the conduct or applicability of mixed-methods research was noted. These include the challenges of choosing an appropriate methodology, striking a balance in

methodology, and resolving the seeming dichotomy between qualitative and quantitative approaches. Furthermore, the dearth of studies using mixed methods draws attention to any possible deficiencies in academics' knowledge of this technique of study. To overcome these obstacles and promote a more thorough knowledge and efficient use of mixed-methods research in postgraduate public administration projects, it may be necessary to implement specific training programs, methodological advice, and institutional assistance.

Conclusion and Recommendation

The research sheds light on the prevalent use of qualitative research methodologies within the realm of postgraduate public administration projects at Adamawa State University. Despite a growing trend towards the adoption of mixed methodologies, their integration remains relatively infrequent. This underscores a pressing need for public administration researchers to deepen their understanding and proficiency in the application of mixed-methods approaches. The identified challenges, such as the intricate process of method selection and the delicate task of achieving methodological equilibrium, serve as critical signposts highlighting areas ripe for enhancement. In essence, the study reveals that while mixed methods are employed to some extent, there exists a significant opportunity for advancing the comprehension, utilization, and rationale of this multifaceted research strategy.

The implications extend beyond the confines of this particular study, signaling a broader imperative for the academic community to invest in comprehensive training and support mechanisms aimed at facilitating the broader integration and effective utilization of mixed-methods research. By bridging the gap between qualitative and quantitative approaches, researchers can unlock new avenues for inquiry and deepen their understanding of complex societal issues. This not only enriches the scholarly discourse within public administration but also enhances the capacity to generate robust evidence-based insights that can inform policy-making and drive meaningful change. Therefore, fostering a culture of interdisciplinary collaboration and methodological diversity stands as a pivotal step towards advancing

the frontiers of knowledge within the field of public administration and beyond.

Recommendation

- a. **Improving Methodological Training:** It is advised that comprehensive training programs emphasizing mixed-methods research be implemented by Adamawa State University and other comparable institutions. Enhancing students' comprehension of both qualitative and quantitative procedures and equipping them with the skills they need to successfully combine these approaches in their research should be the goals of these programs.
- b. **Methodological Support and Resources:** To help students choose and use mixed-methods research, universities should offer strong methodological support and resources. To assist students with their studies, this support may take the form of seminars, workshops, and access to a database of excellent mixed-methods research projects.
- c. **Promoting Interdisciplinary Collaboration:** Mixed-methods research can be applied more effectively if an interdisciplinary collaboration culture is fostered. Students can gain from a variety of viewpoints and areas of expertise by collaborating across departments and disciplines, which can enhance their research results and advance a more comprehensive approach to public administration studies.
- d. **Institutional Policies and Incentives:** Organizations ought to think about creating guidelines and rewards that encourage the use of mixed-methods research. This can entail praising and awarding creative research endeavors that effectively combine qualitative and quantitative methodologies, therefore inspiring more students to do mixed-methods research in their coursework.

It is projected that by implementing these suggestions, mixed-methods research will be used more frequently in postgraduate public administration projects, producing more thorough and significant studies that can improve governance and policy-making procedures.

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