

BOOK REVIEW

RESEARCH METHODS: QUALITATIVE AND QUANTITATIVE APPROACHES BY OLIVE M. MUGENDA AND ABEL G. MUGENDA. AFRICAN CENTRE FOR TECHNOLOGY STUDIES (ACTS) PRESS, NAIROBI – KENYA, 2003. ISBN: 9966-41-107-0. 256 PP.

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Abstract

Orientation of research methodology is principal to researchers and students in order to build up rigours in research undertakings. Despite such importance, most of the literature sources used don't adequately meet the needs of researchers and students. The materials seem not to ground research within the local historical, socio-cultural, political and economic contexts that so much influence the research process. Thus, the authors wrote this book purposely to localise the research process and make steps towards meeting the constant lack of locally available textbooks relating to our own situation and experiences. The book presents research concepts and techniques (qualitative and quantitative) chapter-wise depending on the topical issues at hand. The texts are valid and provide a thorough guidance to students and researchers on the methodologies associated with qualitative and quantitative approaches. Also, the authors have tried to provide guidance and discussions based on the local perspectives as claimed though at some point not well informative and contextualised. Notwithstanding, the book has a number of flaws including misplacement of some chapters; inadequate discussions on theoretical and conceptual frameworks in the literature review; and limited discussions on inferential data analysis. Further, a meticulous discussion on the simultaneous use of qualitative and quantitative approaches in research is missing. Mixed methods approach is more contemporary in social as well as business research; hence, authors could have enriched the discussion by providing a valuable guidance on the synchronised use of both approaches in the analysis and reporting of findings.

Key words: *Research, Methods, Qualitative, Quantitative, Approach.*

1. INTRODUCTION AND SYNOPSIS

Research methodology as a discipline is widely taught in Academic Institutions across the world in order to orient students, candidates and researchers with the fundamentals of doing scientific research. Despite its importance, textbooks available in the market often target American and European audiences. Thus, the widely available textbooks do not adequately meet the needs of African scholars. The materials do not ground research within the local historical, socio-cultural, political and economic contexts that so much influence the research process. That being the case, the authors came with this book in order to localise the research process and make steps towards meeting the constant lack of locally available textbooks relating to African scholars situations and experiences. The book thoroughly provides the discussion of research issues chapter-wise basing on the issues at hand, but most importantly the discussions on fundamental concepts were given an upper hand.

Chapters one and two give a synopsis of the meaning and purposes as well as definitions of basic research terms. The first chapter is well articulated to capture the meaning and purpose of

research, sources of knowledge and relationship between research, science and theory. This gives readers introductory remarks that form the foundation for grasping later concepts of qualitative and quantitative approaches in research. The second chapter underscores basic terms used in research in order to make readers understand them. Authors' interest was to enable readers grasp the meaning and context of research terms which is a prerequisite towards their application in research. Among the terms and concepts expounded include population, sample and sampling as used in sampling procedures; variables definitions and operationalisation; research parameters; descriptive and inferential statistics; research objectives and hypotheses as well as problem statement. Thus, the two chapters give a meticulous discussion which lays the foundation for subsequent chapters pertaining to more theoretical and methodological (qualitative and quantitative) undertakings in research.

Chapters 3 to 9 deal with critical elements of the research process. The third chapter puts terms defined in the second chapter on a practical sense whereby the process of identifying research problem, characteristics of a good research problem, formulation of research objectives and hypotheses are all discussed. Once the readers understand the process and what it takes, they will be able to develop the first chapter of the research proposal rigorously. Chapter four guides readers towards reviewing literature critically in order to determine existing or potential knowledge gap(s) and obtain extensive knowledge of the problem being studied. The fifth chapter narrates methods and procedures to be followed in conducting a study. The techniques and steps involved in understanding the study are described in details, which is helpful towards understanding one's study, particularly where replications may be addressed. Hence, the chapter covers techniques and approaches relating to sampling, variables and their subsequent measurement. Chapter six is on concepts and issues relating to development of instruments for data collection. The authors argue that in social science research the commonly used instruments are questionnaire, interview schedules, observational forms and standardised tests. Thus, the chapter focuses on how to develop the aforementioned research instruments as well as the 'dos' and 'don'ts'.

The seventh chapter is about reliability and validity in research and how they are supposed to be measured or ensured respectively. Instruments of data collection must be intact (reliable and yield valid data) since the quality of a research study entirely depends on accuracy of the data collection procedure. The authors boldly put it clear that research instruments must yield data not only relevant to the research hypotheses but also correct (pg. 95). Despite a focused discussion, the types of reliability have not been given much attention as it was for the types of validity. Bryman (2012) observed that there are two types of reliability that include internal and external reliability. Likewise, Middleton (2020) and Trochim (2020) observed that there are four types of reliability estimates that include inter-rater (inter-observer); test-retest, parallel-forms; and internal consistency reliability. Chapter eight puts more emphasis on data analysis whereby the collected data must be cleaned, coded, punched and analysed in order to make proper interpretations unlike when data are raw. The chapter mainly focuses on data coding process, data entry as well as the common statistical procedures used in data analysis. However, authors plainly declare that "...the discussions contained are limited to the concepts without getting involved in complicated statistical computations..." (pg. 115) without compelling reasons. The ninth chapter guides the researchers on research report writing whereby authors emphasise on the need of the report to be written watchfully in such a way that it is informative to readers. The report should present data fully and adequately but also include adequate interpretation of the analyses and relate findings with objectives. Consistency and coherent flow of arguments should be there throughout the document.

Types of research have been discussed in chapter ten through which authors thoroughly provide a debate on the classifications of research basing on purpose; methods of analysis; and type of

research. Authors make it very clear that “...these broad classifications are not necessarily mutually exclusive, and a researcher could use more than one...” (pg.155). Notably, there are a number of ways to provide classifications of research depending on the context. However, the basic scientific principles of research undertakings are yet homogeneous. The classification by purpose is made basing on the rationale and expected outcome of the research process. In this classification authors argue that there is basic research, applied research, action research and evaluation research. Also, the classification based on methods of analysis is grounded on the premise that research differs depending on methods and techniques used to analyse the collected data since the output won't be the same. Thus, there are categories such as descriptive research, causal-comparative research, and correlation methods research. The last category is based on 'type of research' whereby there is survey research, historical research, observational research, and experimental methods research. The types have been detailed in terms of definition, purpose and steps involved in undertaking one.

The eleventh chapter gives an elaborative overview of logistical and ethical issues that have to be followed in research process. The chapter even gives an example of logistical issues (by then) to be followed specifically for interested parties who wish to do their research in Kenya (local context). Awareness of logistical issues and subsequent preparations will save the researcher a great deal of resources particularly money, time and energy. The chapter also stresses the importance of adherence to ethical issues as it will protect the integrity of the researcher but also ensure honest findings. The part of logistical issues covers key categories of logistics that include the pre-field work, field work, and post-field work logistics that all together must be planned and executed cautiously. The authors caution researchers that research endeavours are very expensive undertakings in terms of time, finances and human resources. Imagine if some of the collected data or all of them are unacceptable or lost; replacing such data would be close to impossible, but also researcher(s)' anxiety and confusion is unthinkable. Hence, careful planning is fundamental as it will minimise obvious challenges and problems mostly encountered by researchers in the field. The second part presents highlights on ethical issues which have been divided into three categories, namely ethical issues related to research, ethical issues concerning research subjects, and ethical issues concerning research process. All these provide an important discussion on ethical principles that should be observed and adhered to by researcher(s) in order to avoid infringement on privacy and confidentiality; frauds and plagiarism; misuse of privileges and academic freedom.

Qualitative research basics, techniques and approaches have been well discussed in the twelfth chapter. The authors, basing on their orientations and experience on research methodology, have given a scrupulous breakdown of the qualitative research approaches. Most importantly, there is a valuable discussion particularly to researchers and students on qualitative research approach in relation to the theoretical debate, data collection, analysis and report writing. Also, the chapter provides a brief discussion and comparison between qualitative and quantitative paradigms as presented in Table 13. The authors note the biases that researchers have been conditioned and aligned more with quantitative approaches at the expense of qualitative approaches. The premise behind is the conditioning that quantitative approaches are the only legitimate mode of inquiry because they yield numbers, charts and tables, which apparently are more convincing. However, the reality is that both approaches are similar in sequence and methods since researchers start with the problem; formulate research objectives; develop hypotheses/research questions; define the population and sample; collect and analyse data; present findings and draw conclusion. Thus, the point of distinction is the way how researchers put the various components together in each approach in terms of process and final output.

Finally, chapter thirteen gives a discussion of research and project proposal development. The chapter emphasises on the importance of contents to students who are doing higher degrees and

practitioners who may want to develop project proposals. The authors note the importance of a research proposal in the academia but also explain the differences between research proposals and project proposal. Though there are different formats for preparing the respective proposals basing on guidelines prepared by the respective institutions, the chapter gives a resolute discussion on components and contents of each proposal category. There are some examples and practical narrations throughout which, if properly followed, readers will get the basic knowledge on how to prepare the proposal(s) by their own. This gives readers a decisive understanding of the proposals which gives them the rigour towards successful proposal development whether for an academic award or for a competitive project award. Nonetheless, the chapter seems to have come very late after a chapter on research report writing. It would have added more value to the discussion if it had been placed in the earlier chapters (after the second chapter), especially the research proposal development part compared to project proposal development. This would have enabled readers to connect the basic proposal concepts with the preceding chapters coherently on contents such as formulation of objectives and hypotheses; sources of literature and literature review; and sampling of respondents.

2. REVIEW AND DISCUSSIONS

The authors' touch on African context in order to cover the observed vacuum in research methodology text books is admirable. Though not much, the book vividly has discussed techniques of conducting research giving local examples and strategies for overcoming constraints commonly encountered when conducting research locally. As authors claim, the book has some significance to quality of research and can be useful to university students in undergraduate and postgraduate programmes. Reading through the book, researchers (particularly students) will find it useful since it discusses and outlines the research process, concepts and technical terms in a user-friendly language which can be easily understood. Despite the commending remarks, going through the book, I noticed some flaws as a researcher and trainer. Among the weaknesses, though not substantial, is the arrangement of some chapters and contents. For example, the first chapter is about the meaning and purpose of research; the succeeding chapter is on basic terms in research then surprisingly the types of research have been pegged in chapter ten. This probably should have been the second or third chapter in order to have a more logical flow rather than placing it nearly at the end of the book while it was supposed to be a preliminary chapter.

Placing a chapter of 'types of research' successively after chapters on 'data analysis' and 'writing a research report' is a flaw which could have been avoided. This misplacement defeats the authors' claims (*in the preface*) that organisation of the texts follows the format of the research process. How does a chapter on types of research or logistical and ethical issues come after the one on 'report writing'? The said chapters should have come earlier before chapter 6 (developing research instruments). Practically, this would have provided more guidance to researchers on ethical principles to be observed during the preparation of data collection tools as well as the logistical issues to be followed prior to and during data collection. Thus, the conventional research process should have been followed during chapter arrangements on topical concepts (coherence), just like what has been done by Saunders *et al.* (2012) and Bryman (2012) respectively.

Despite the book being prepared to localise the research process as the authors claim, the research process is guided by scientific procedures and principles which are universal. Thus, the authors' claims seem to be unrealistic and idealistic since science knows no boundaries as it is not prejudiced but rather factual. Though authors effortlessly provided some debates on the local contexts (*e.g.* pg. 12, 13, 21, 22 and 181), the claimed local situations and experiences have not been rigorously discussed. This is evidenced by the references used by the authors to guide their discussion (*refer* pg. 249 - 252) whereby the majority are hedged on the context of

America and Europe. Thus, if the focus was on providing a paradigm shift, the authors were supposed to give meticulous discussions (objectively) throughout on what fits the 'local context' and how it can be applied rather than providing only examples. Also, contextualisation of the 'local context' is debatable since research undertakings sometimes involve multiple partners worldwide with their own kinds of 'local context'. Hence, making the research process more informed by the local context can be fatal when it comes to the generalisation, replication and/or validation of the joint research results/findings. Thus, there is a need to stick to the principles of research before putting more emphasis on addressing the needs of the local context that seemingly informs the research process somehow.

The literature review chapter could have been enriched more to enable researchers and students understand the theoretical and conceptual frameworks. This would have enabled them to grasp basics of knowing the potential theories to guide a study as well as how to construct the conceptual framework. The theoretical and conceptual frameworks explain the path of a research and ground it firmly in theoretical constructs in order to make findings more meaningful, enhance the empiricism and rigour as well as ensure generalisability (Adom *et al.*, 2018). Needless to say, both theoretical and conceptual frameworks assist in stimulating research while ensuring the extension of knowledge by providing both direction and impetus to the research inquiry which gives life to a research (Imenda, 2014). Unfortunately, many postgraduate students and researchers are confused of the two terms and apply them wrongly in their research papers. As a result, their research findings become weak because of the inappropriate application of a suitable theoretical framework and/or conceptual framework (Adom *et al.*, 2018). Thus, including such discussion in the chapter of literature review would have been more influential.

Authors also argue that questionnaire, interview schedules, observational forms and standardised tests are the commonly used data collection instruments in social science research. Undoubtedly, the claim is undeniable but inconclusive since there are more commonly used methods and instruments for data collection. Amongst the methods left out in the discussion include documentary review and focus group discussion which have proved to be valuable in qualitative data collection particularly in social and business research. According to Bryman (2012), researchers using the methods undertake their work within the traditions of qualitative research. Researchers are explicitly concerned to reveal how the group participants view the issues with which they are confronted with. The farfetched aim is to provide a fairly unstructured setting for the extraction of their views and perspectives which matters a lot in social and business research. For example, the method has been used in market researches for testing responses to new products and advertisement. Similarly, documentary review has been very useful in the collection of secondary data, both qualitative and quantitative, depending on the context. Saunders *et al.* (2012) argue that documentary secondary data are increasingly used by researchers since they can easily be obtained online via websites or blogs, but also via institutional repositories and data bases once granted access by the 'gatekeepers'. Thus, it is the most contemporary and sometimes convenient data collection technique exceedingly used for business research, particularly longitudinal studies. However, there are issues to be observed including locating data, evaluating its usefulness in relation to research objectives/questions and associated ethical issues.

A rigorous discussion of quantitative research approaches is somehow missing, unlike the qualitative approaches on which the authors have made a specific chapter. Also, how the approaches can be used simultaneously in research activities is not adequately addressed. The title of the book provides an indication that both approaches (qualitative and quantitative) will be exhausted comprehensively and how jointly they can be used or support each other. The authors eloquently profiled the qualitative data analysis process and techniques used in chapter

twelve which gives the researchers a focused guide on the data analysis steps as well as reporting outputs. Recently, social and business researches are based on mixed methods approach whereby both qualitative and quantitative data are collected, analysed and cross-discussed respectively to complement each other and corroborate findings. Hence, the authors should have considered giving more explanations on the combined use of both qualitative and quantitative approaches in order to provide a complete understanding of a research problem than either approach alone (Creswell, 2014). Johnson *et al.* (2007) commends mixed method approach since it allows a researcher to conduct a series of semi-structured interviews with a small number of respondents but also carries out a large-scale survey in order to hedge the methodological pitfalls of one approach.

Also, the discussion of quantitative data analysis techniques focused more on descriptive statistics without giving more details on the inferential models. This can be seen on page 115 where the authors declare that discussions contained (chapter eight) are limited to concepts without getting involved in complicated statistical computations without any compelling reasons. For example, only Pearson Product-Moment Correlation (pg. 132) has been detailed without considering other types of correlation such as Spearman's rank correlation and Kendall's rank correlation (Saunders *et al.*, 2012). Thus, the book could have specified more quantitative approaches and techniques applied in data analysis. Further, only simple regression and multiple linear regression models have been discussed (pg. 135) without explaining their underlying assumptions and how to test them as detailed by Pallant (2011) as well as Tabachnick and Fidell (2007). Besides, the discussion of other regression models including binary logistic; ordinal logistic and multinomial logistic regression is missing. The logistic models are very useful in social and business research.

At some point the authors claim that quantitative approaches have been discussed in the previous chapters under the umbrella of 'scientific method' (pg. 197), unlike the qualitative approaches which are considered otherwise. More is demanding on the same to qualify the underlying premise behind the aforesaid misconception. Qualitative approaches are part of 'scientific methods' since they follow most of the logical principles of research, just like the quantitative approach (as highlighted on pg. 198). The approaches principally are more or less the same. That is why the use of mixed methods approach has gained more attention in business and social science research. Bryman (2012), Saunders *et al.* (2012) and Creswell (2014) argue that mixed methods approach is deliberately used in order to triangulate findings so that they may be mutually corroborated towards deriving conclusions. The approaches (qualitative and quantitative) may be combined in a variety of ways ranging from simple, convergent forms to complex. However, the timing of combining the approaches can be sequential or concurrent as put forward by Saunders *et al.* (2012). Besides, the researcher (depending on the context of the study) has the merit of using all approaches at every stage (i.e. fully integrated mixed methods); use both or either at only particular stage (i.e. partially integrated mixed methods).

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