Qualitative Research Methodology in Social Sciences

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Abstract

The objective of this study is to provide a guide to qualitative research methodology in social sciences. It is the result of the observation that research in Management Sciences in most Universities in Cameroon is still dominated by the quantitative approach supported by economists who handle most research methodology courses. In an environment of oral tradition and the difficulties to have access to data, emphasising purely quantitative research may leave aside many aspects of the environment and several areas of human behaviour that make its specificities. Therefore, there is a need to generalise the use of qualitative research to enable researchers to always have a good insight into phenomena not yet clarified before thinking of any generalisation which is the main objective of quantitative research: this gives room to the contextualisation of research which results can easily be applied in its context, thus, enhancing development.

Introduction

A research can be quantitative, qualitative research or mixed. Research methodology used in social science in the 20th century was largely quantitative. Quantitative research deals with numbers and statistics, while qualitative research deals with words and meanings (Rutberg and Bouikidis, 2018). Each of these types of research has different objectives and methods, and both are important for gaining different kinds of knowledge. According to Rutberg and Bouikidis (2018), the key word in quantitative research analogy is *measure* while in qualitative research it is *perception*.

Quantitative methodology originated in the natural sciences such as Mathematics, Biology, Chemistry, Physics and Geology. It was concerned with investigating things which we could observe and measure in some way. Such observations and measurements can be made objectively and repeated by other researchers (Fekede, 2017; Antwi and Kasim, 2015; (Hlady-Rispal, 2015; Hlady-Rispal et al., 2021; Pyo et al., 2023).

Gradually, some researchers started finding that the aim of a research practice should be to understanding the meaning that events have for the individual being studied in his/her context, raising the criticism against quantitative research. This was mostly done in social sciences namely Sociology and Anthropology. Confronted to this situation, these researchers pursue their investigations and later developed qualitative methodology, which attempts to better understanding why things are the way they are in social world and why people act the ways they do.

The objective of this paper is to present qualitative research methodology in management sciences, a field widely dominated by economists in developing nations.

Each research is based on some underlying philosophical assumptions about what constitutes "valid" research and which research method (s) is/are appropriate for the development of knowledge in a given study (Hamza Kasim and Stephen Kwadwo Antwi, 2015; <u>Shikalepo, 2023</u>). First coined by Kuhn (1962) to

denote a conceptual framework shared by a community of scientists, paradigm originated from the Greek word *paradeigma* which means pattern. It provides scientists with a convenient model for examining problems and finding solutions. Paradigm conditions the selection of research methodology as it guides the research venture.

A research paradigm is an all-encompassing system of interrelated practice and thinking that define the nature of enquiry along these three dimensions of a research process which are ontology, epistemology and methodology (Terre Blanche and Durrheim, 1999; Guba and Lincoln, 2005).

According to Guba and Lincoln (2005) the answer to questions regarding these three elements provides an interpretative framework that guides the entire research process including strategies, methods and analysis.

Ontological Issues in Business Research

Ontology is the way the researcher defines the truth and reality. It refers to a branch of philosophy concerned with articulating the nature and structure of the world (Arora and Sharma, 2023; Wand and Weber, 1993). It states the form and nature of reality as well as what can be known about it. There are two broad contrasting paradigms or positions – objectivism and constructionism: according to Neuman and Dickinson (2003) objectivism holds that there is an independent reality and constructionism assumes that reality is the product of social processes.

Objectivism goes with the positivist paradigm of exploring social reality which assumes that reality is objectively given and is measurable using properties which are independent of the researcher and instruments, in other words, knowledge is objective and quantifiable.

On the other hand, interpretive researchers prefer constructionism as they believe that reality consists of people's subjective experiences of the external world; thus, reality is socially constructed – it is a human construct (Tuli, 2010). Interpretivists believe there is no single correct route or particular method to knowledge (Willis, 1995). Walsham (1995) claims that in the interpretive tradition there are no 'correct' or 'incorrect' theories. Instead, they should be judged according to how 'interesting' they are to the researcher as well as those of the same areas. They strive to derive their constructs from the field by an in-depth examination of the phenomenon of interest. Gephart Jr (2004) states that interpretivists assume that knowledge and meaning are acts of interpretation, hence there is no objective knowledge which is independent of thinking, reasoning humans.

Myers (2009) argues that the premise of interpretive researchers is that access to reality, whether given or socially constructed, is only through social constructions such as language, consciousness and shared meanings. Interpretive paradigm is supported by observation and interpretation; henceforth, to observe means to collect information about events, while to interpret consists of giving a sense to the information by drawing inferences or by judging the match between the information and some abstract pattern (Aikenhead, 2003; Aikenhead and Jegede, 1999; Alharahsheh and Pius, 2020; Frechette et al., 2020; Bonache, 2021). It attempts to understand phenomena through the meanings that people assign to them (Deetz, 1996). (A. J. Gill, 2021) notes that the "interpretivist" paradigm stresses the need to put analysis in context.

Epistemological Issues in Business Research

Epistemology is the process in which the researcher comes to know the truth and reality. It refers to the nature of the relationship between the researcher, the knower, and it denotes "the nature of human knowledge and understanding that can possibly be acquired through different types of inquiry and alternative methods of investigation" (Levy et al., 2020; Ntakumba and de Jongh, 2023; Seidel and Watson, 2020). Epistemology raises the following questions: what relationship exists between the knower and what is known? How do we know what we know? What matters as knowledge? The major epistemological positions are positivism and interpretivism - constructivism.

Positivism evolved largely from a nineteenth-century philosophical approach. According to positivists, the purpose of research is scientific explanation. Empirical facts are separated from personal ideas or thoughts;

they are governed by laws of cause and effect; patterns of social reality are stable and knowledge of them is additive (Crotty, 2020; Murigi et al., 2020; Otoo, 2020; Wessels, 2020). This framework maintains that reliable knowledge is based on direct observation or manipulation of natural phenomena through empirical, often experimental, means (A. Neuman and Aviram, 2003; S. B. Neuman and Dickinson, 2003; Guba and Lincoln, 2005; Lincoln et al., 2011). Positivism is based on the philosophical ideas of the French Philosopher, August Comte who stated that observation and reason are the best means of understanding human behaviour. Positivism is concerned with uncovering truth and presenting it by empirical means (Ali and Farooqi, 2014; Sanchez et al., 2023; Yu, 2017). According to Walsham (1995a, 1995b) the positivist position maintains that scientific knowledge consists of facts while its ontology considers reality as independent of social construction.

The interpretivist/constructivist perspective, the theoretical framework for most qualitative research, sees the world as constructed, interpreted, and experienced by people in their interactions with each other and with wider social systems (Merriam, 1988; Bogdan and Biklen, 1997; Maxwell, 2004; Guba and Lincoln, 2005). According to this paradigm the nature of inquiry is interpretive and the purpose of inquiry is to understand a particular phenomenon, not to generalize to a population (Farzanfar, 2005; Farzanfar et al., 2005). The interpretive paradigm is all about understanding the world as it is from subjective experiences of individuals. They use meaning oriented methodologies such as interviewing or participant observation that rely on a subjective relationship between the researcher and subjects instead of measurement methodologies. In interpretive research, there is no predefinition of dependent and independent variables, but a focus on the full complexity of human sense making as the situation emerges. Interpretives are not primarily interested in the generation of a new theory, but to judge or evaluate, and refine interpretive theories.

The fundamental criterion for qualitative reports is credibility (Lincoln and Guba, 1985). How, they ask, can a researcher be certain that "the findings of an inquiry are worth paying attention to, worth taking account of? A credible and authentic research is one in which investigations are based on a sound rationale that explains the use of chosen methodology.

Methodological Issues in Business Research

Methodology is the method used in conducting the investigation. It is a research strategy that translates ontological and epistemological principles into guidelines that show how research is to be conducted (Dowling and Cooney, 2012; Jones et al., 2005; Wahyuni, 2012; Antwi and Kasim, 2015). It reveals how the researcher obtains results for a study.

The positivist research paradigm underpins quantitative methodology. The realist/objectivist ontology and empiricist epistemology contained in the positivist paradigm requires a research methodology that is objective or detached, where the emphasis is on measuring variables and testing hypotheses that are linked to general causal explanations (Sarantakos, 2005; Marczyk et al., 2005). Positivists emphasise the use of valid and reliable methods in order to describe and explain the events.

Concerning the qualitative methodology, it is supported by interpretivist epistemology and constructionist ontology. It assumes that meaning is embedded in the participants' experiences and that this meaning is mediated through the researcher's own perceptions (Merriam, 1988). Methodologically, constructivists and interpretivists do not believe in experimental or quasi-experimental research designs. Constructivists assume that reality is multifaceted and cannot be fragmented or studied in a laboratory, rather it can only be studied as a unified whole within its natural context (Candy, 1991; Hutasuhut et al., 2021).

Materials and Methods

Researchers using qualitative methodology immerse themselves in a culture by observing its people and their interactions, often participating in activities, interviewing key people, taking life histories, constructing case studies, and analysing existing documents or other cultural artefacts. The qualitative researcher's goal is to attain an insider's view of the group under study. This makes qualitative research methodology a little bit different from the quantitative research methodology with respect to the type of qualitative research, the strategy used, the research design, sample size, instruments and methods of data collection and analysis.

Qualitative Research Designs

The major types of qualitative research designs include ethnography, phenomenology, grounded theory, historical research, and case studies (Anadón and Guillemette, 2006; Atangana-Abe, 2003; ELLIS, 2021; Fischer and Guzel, 2023; Flick, 2022; Polit and Beck, 2014).

Ethnography

Ethnography reveals the way culture is defined, the behaviour associated with culture and how culture is understood (Gagnon, 2012; Lin et al., 2023; Yin, 1994). Agar (1986) described ethnography as "encountering alien worlds and making sense of them". Ethnography design allows the researcher to investigate shared meanings that influence behaviours of a group (Polit and Beck, 2012; Morris, 2022).

Phenomenology

Phenomenology is employed to investigate a person's lived experience and uncover meanings of this experience (Polit and Beck, 2012; Kyzar and Denfield, 2023; Larsen et al., 2022). Phenomenological studies aim at describing the meaning that experiences hold for each subject. This type of research is used to study areas in which there is little knowledge (Donalek, 2004).

Grounded theory

Grounded theory investigates actions and effects of the behaviour in a culture. Grounded theory is a qualitative research approach developed by two sociologists Glaser and Strauss (2017). Grounded theory studies are ones in which data are collected and analysed, then a theory grounded in the data is developed (Mohajan and Mohajan, 2022; Urquhart, 2022; White and Cooper, 2022).

Historical research

Historical research scans the past with the use of recorded data, such as photos or objects. It relates to the identification, location, evaluation, and synthesis of data from the past. Historical research seeks not only to discover the events of the past but to relate these past happenings to the present and to the future (Ehrmin and Pierce, 2021; Reid and Okoko, 2023; Vaughn, 2022). Leininger (1985) wrote: "Without a past, there is no meaning to the present, nor can we develop a sense of ourselves as individuals and as members of groups".

Case study

A case analysis is a deep dive into a subject, an in-depth examination of people or groups of people (Eisenhardt, 1989; Gummesson, 2000; Hlady-Rispal, 2015; Paré, 2004; Yin, 1994; Choudrie et al., 2023; Robson, 1999; Werang and Leba, 2022). The case method has its roots in sociology and has also been used a great deal in anthropology, law, and medicine. A case study may be considered as quantitative or qualitative research depending on the purpose of the study and the design chosen by the researcher. The major types of case studies are descriptive case studies, explanatory case studies, exploratory case reports, intrinsic case studies, instrumental case studies and collective or multiple case studies (Stake, 1994; Yin, 2017).

A descriptive case study is one that is focused and detailed, in which propositions and questions about a phenomenon are carefully scrutinized and articulated at the outset (Paré, 2004; Rattani et al., 2022; Robson, 1999; Yin, 1994).

The explanatory case study focuses on an explanation for a question or a phenomenon (Dingsøyr et al., 2023; Grenier and Josserand, 1999; Porter, 2023).

An exploratory case study aims at getting an insight into an unknown phenomenon. It is usually the precursor to a formal and large-scale research project. The case study's goal is to prove that further investigation is necessary (Almås et al., 2023; Deslauriers and Kérisit, 1997; Fukuzawa et al., 2022; Hlady-Rispal et al., 2021; Yin, 1994).

Multiple case or collective studies involve the study of many cases in order to get an insight into a particular phenomenon (Gonzalez et al., 2022; Raghunathan et al., 2023).

An intrinsic case study involves the study of a case in which the subject itself is the primary interest (McCain et al., 2023; Teague, 2022).

An instrumental case study in the one in which a case is used to gain insights into a phenomenon (Gentry, 2022; O'Brien et al., 2022; Perumpully et al., 2023; Warner et al., 2023).

Action research

Action research is a type of qualitative research that seeks action to improve practice and study the effects of the action that was taken (Dhaliwal et al., 2021). It is in the 1940s that it became popular. Lewin (1946) was influential in spreading action research as he came interested in helping social workers to improve their practices.

Participatory action research (PAR) is a special kind of community-based action research in which there is collaboration between the study participants and the researcher in all steps of the study: determining the problem, the research methods to use, the analysis of data, and how the study results will be used (Daepp et al., 2022; De Oliveira, 2023; Rumsey et al., 2022). The participants and the researcher work together throughout the entire study.

Documentary research

Documentary research makes use of the already existing reliable documents and similar sources of information as the data source (Cruz, 2022; Morgan, 2022). This data can be used in new research. This is similar to going to a library. There one can go over books and other reference material to collect relevant data that can likely be used in the research.

Population of study, target population and sample size in qualitative research Population of study

A population is an identifiable total group or aggregation of elements (e.g., people, products, organizations, physical entities) that are of interest to the researcher and pertinent to the specified information problem.

A defined target population consists of the complete group of elements (people or objects) that are specifically identified for investigation according to the objectives of the research project. A precise definition of the target population is essential and is usually done in terms of elements, sampling units, and time frames.

An element is a person or object from which data and information are sought. Often in research, the element is a particular product or group of individuals. It must be unique, countable and, when brought together, makes up the total target population. Elements can be viewed collectively as the target population frame for which some type of sample will be drawn. Target population elements might include a particular consumer product, specific groups of people or specific organizations. When the initial definition of the target population misdefines the elements, it creates a bias referred to as target population frame error.

Sampling Technique and Size in Qualitative Research

Sampling units are the elements of the target population that are available for selection during the sampling process. In a simple, single-stage sample, the sampling units and the population elements may be the same.

A sampling frame is the process of assembling a list of all eligible sampling units.

Sampling Technique

The sampling technique or design refers to the process of selecting an element to constitute the sample. The process is of utmost importance when designing a study that uses interviewing or surveys for raw data

collection. Overall, there are two basic sampling designs: probability and nonprobability (Alvi, 2016; Taherdoost, 2016).

Sampling Size in qualitative research: a critical issue

The problem in qualitative research is to determine the most appropriate size. There is no fixed rule imposing an exact or ideal number of cases. However, some authors have proposed a number of sufficient cases which would allow the study to meet the criteria of internal and external validity and credibility. Eisenhardt (1989) notes that, depending on the research object selected, the number of cases can be between four and ten. Below four, it is often difficult to generate a complex theory, and the empirical scope of the study may be unconvincing, unless each case presents mini-cases. However, this lower limit is not accepted by Yin (1994) who suggests, for exploratory studies falling within a logic of discovery, to compare two to three cases. It then offers the possibility of resorting to the single case or to the multi-cases, depending on the number of analysis units present. The choice of a case can be justified by its unique and specific character, the choice of two or three cases, by the exploratory nature of the research and the choice of four to ten, by the objective of comparison. Indeed, beyond ten cases, it is very difficult to cope with the complexity and the volume of data, even if the study may claim to reveal a more robust character, it will prove to be demanding in terms of resources. What often happens in such situations is that the researcher comes out with a superficially done study because of the difficulties to get to a real and deep investigation of the phenomenon (HaldyRispal, 2002).

Vivi (2008) used two different principles that define the size of a sample in a multiple case study, the objective is to determine the minimum size that allows to obtain sufficient confidence in the results. These principles are the replication and theoretical saturation.

Replication

Deciding to choose the multiple case is to opt for research that could provide more credibility and robustness to the theoretical propositions or to the results obtained (Yin, 1994). In replication, the researcher uses a theoretical framework, studies the first case in depth, examines the other cases successively in order to find out if the patterns discovered in the first case correspond to those of the other cases. When no new results emerge after analysing the data collected, saturation is reached (Glaser and Strauss, 1967; Thietart, 1999).

The principle of theoretical saturation

Without using the term replication, as does Yin (1994) who advocates a logic of successive replication to authorize the generalization of the extent, Glaser and Strauss (1967) use the concept of theoretical saturation. This concept assumes that the addition of new data in the research does not lead to a better understanding of the phenomenon studied (Hennink and Kaiser, 2020). Concretely, the relation observed within a group subjected to certain conditions will be the same for another group subjected to similar conditions (Glaser and Strauss, 1967). Only a relationship that is different or that disappears is considered an important discovery, not the rediscovery of an identical relationship, since the relationship, once revealed, is assumed to be verified elsewhere. Theoretical saturation is therefore the moment from which the incremental learning is minimal. Glaser and Strauss (1967) will say that researchers observe the phenomena already observed.

From postpositivist perspective, saturation is a signal of the representativeness of the data. For Yin (1994), the knowledge produced then possesses a certain degree of generalization. This rather transferable knowledge will allow the user of the results to be able to appreciate them, to make comparisons with his own context and to understand the phenomenon studied, given its own contextual constraints (Thietart, 1999; Mucchielli, 2002). Determining beforehand a number of quantities for the units of analysis as recommended by Yin (1994), is not necessary, because the adequate size of a sample is that which makes it possible to reach the theoretical saturation (Glaser and Strauss, 1967). Nevertheless, it turns out to be difficult to determine a priori what would be the number of cases which would make it possible to reach saturation, because we can never know to what extent the researcher will not be able to find different elements that could enrich the data. The authors mention that it is up to the researcher to estimate whether he

has reached the saturation stage. Usually, information collection stops when the last unit of analysis has not provided any new information.

Instruments and Methods of data collection

Instruments of data collection

Creswell et al. (2007) and Hamilton and Finley (2019) stated that qualitative researchers have quite a number of data collection instruments as follows:

An interview guide is suitable for a researcher who intends to conduct an interview. An interview guide lists the topics and questions that a researcher plans to cover during an interview (Jamshed, 2014).

A focus group discussion guide can be used when a researcher wants to collect narrative data from a group of individuals. According to Guest et al. (2017) a focus group discussion guide contains questions that guide researchers when they gather people from similar backgrounds or experiences together to discuss a specific topic of interest.

An observation checklist is appropriate when collecting data through observation. An observation checklist is a list of the items an observer examines in observing participants' behaviour (Howitt, 2019).

A documentary analysis guide is another instrument for qualitative data collection available for researchers who want to gather data from existing documents. The documentary analysis guide is a detailed systematic procedure that guides a researcher to analyse documentary evidence to answer specific research questions (Forman et al., 2008).

Methods of Data Collection

Qualitative data can be collected through interviews, projective techniques, focus group, observation or document analysis (Gill et al., 2008; Gill, 2021).

Interviews

Depth interviews are discussions about a specific topic. These participants are often consumers, but they may also be the decision makers in a market research study, who are interviewed to gain an understanding of their clients' needs. They may also be government or company representatives (Gill et al., 2008).

In their simplest form, interviews are unstructured and participants talk about a topic in general. This works well if the researcher wants to obtain insight into a topic, or as an initial step in a research process. Interviews can also be fully structured, meaning all questions and possible answer categories are decided in advance. This leads to the collecting of quantitative data. However, most depth interviews in qualitative research are semi-structured; they contain a series of questions that need to be addressed, but that have no specific format regarding what the answers should look like. Consequently, the set-up of the questions and the structure of the answers need to be similar (Carry and Mijares, 2019; Carlson, 2020; Roberts, 2020).

Depth interviews are unique in that they allow for probing on a one-to-one basis, fostering interaction between the interviewer and interviewee. Depth interviews also work well when those being interviewed have very little time and when they do not want the information to be shared with the other study participants.

Projective Techniques

Projective techniques describe a special type of testing procedure, usually used in depth interviews (Frick et al., 2020; Hertz, 2019). They work by providing participants with a stimulus and gauging their responses. Even if participants in projective techniques are aware they are taking part in a research, they may not be aware of the research's specific purpose. The stimuli provided in projective techniques are ambiguous and

require a response from the participants (Kubacki and Siemieniako, 2017; Cherdymova et al., 2018). A key form of projective techniques is sentence completion.

Focus Groups

Focus groups are interviews conducted among a number of respondents at the same time and led by a moderator (Nyumba et al., 2018) who leads and structures the interview and often plays a central role in transcribing the interview later. When consumers are involved, moderators often travel to a market research company, or hotel, where a conference room is used for the focus group (Daniel et al., 2021).

After the exercise, participants are briefed, then, the discussions are transcribed for analysis (de Sousa et al., 2020). Focus groups have distinct advantages: they are relatively cheap compared to depth interviews, they work well with issues that are important socially or which require spontaneity.

Observation

Qualitative Observation is a research method in which characteristics of a phenomenon are described based on the observer's subjective appraisal. It is more time consuming than quantitative observation but the sample size is much smaller and the research more extensive and more demanding (Ciesielska et al., 2018).

Documentary Analysis

Document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around an assessment topic (Karppinen and Moe, 2019; Tight, 2019). Analysing documents incorporates coding content into themes similar to how focus group or interview transcripts are analysed (Bowen, 2009). According to O'Leary (2014), documents can be collected from three major sources, namely public records (such as annual reports and policy documents), personal documents (such as emails and duty logs) and physical evidence (documents found at the study site such as leaflets and posters).

Instruments and Methods of Data Analysis

Instruments of Data Analysis

Qualitative data can be analysed manually or with the use of computer software. But manual analysis remains the most accurate because it takes into account non-verbal communication which is essential in qualitative research.

Methods of Data Analysis

The 6 most popular Qualitative Data Analysis methods include qualitative content analysis, narrative analysis, discourse analysis, thematic analysis, grounded theory (GT) and interpretive phenomenological analysis (IPA).

Content analysis

Content analysis is probably the most common qualitative data analysis method. At the simplest level, content analysis is used to evaluate patterns within a piece of content (for example, words, phrases or images) or across multiple pieces of content or sources of communication (Smith and Firth, 2011; Sgier, 2012).

Narrative Analysis

Narrative analysis consists of listening to people telling stories and analysing their meanings. Since stories serve a functional purpose of helping the researcher to make sense of the world, he/she can gain insights into the ways that people deal with and make sense of reality by analysing their stories and the ways they're told (Ritchie and Spencer, 2002; Sgier, 2012).

Discourse Analysis

A discourse is a written or spoken language or debate; therefore, discourse analysis consists of analysing language within its social context. In other words, analysing language such as a conversation, a speech, within the culture and society it takes place in.

Thematic Analysis

Thematic analysis looks at designs of meanings in a data set. A thematic analysis takes bodies of data (which are often quite large) and groups them according to similarities or themes. These themes help the researcher to make sense of the content and derive meaning from it.

Grounded theory (GT)

Grounded Theory is a powerful qualitative analysis method which aims at creating a new theory (or theories) using the data at hand, through a series of tests and revisions. For example, the researcher could try to develop a theory about what factors influence students to read, watch a television series about qualitative analysis (Bluff, 2005; Engward, 2013; Glaser and Strauss, 2017).

After analysing the interview data, a general hypothesis or pattern could emerge.

Interpretive Phenomenological Analysis, IPA

IPA is designed to help the researcher to understand the personal experiences of a subject concerning a major life event, an experience or a situation. This event or experience is the "phenomenon" or phenomena that makes up the "P" in IPA. These phenomena may range from relatively common events – such as childhood, or being involved in a movie – to those which are extremely rare.

Conclusions

Qualitative research originates in the disciplines of social sciences like psychology, sociology, and anthropology. It gives room to in-depth and further probing and questioning of respondents where the interviewer/researcher tries to understand their motivation and feelings. It helps to have an insight into an unknown problem.

The variety of qualitative research techniques tells about its dynamism and pertinence. Its methodology alone is an art that deserves not only its good mastery but also a good mastery of the language used.

The results of qualitative methods are more descriptive and the inferences can be drawn quite easily from the obtained data.

In the context of Africa which is characterised by the scarcity of data, the refusal to provide data and the wide use of oral communication, qualitative research appears to be a solution to contextualise research.

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