

# Research paradigm: Implications to Novice Management Accounting Researchers studying Small and Medium Enterprises.

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**Abstract:** The paper sought to elucidate research paradigms for novice management accounting researchers who are conducting heuristic studies among Small and Medium Enterprises (SMEs). The paper critically anatomizes literature on research methodology, discussing the philosophical assumptions in social science research. It also reviews the ontological, epistemological, axiological and methodological positions for each research paradigm. Furthermore, this paper also discusses the various aspects to be considered when undertaking a management accounting research among SMEs. The study adopted a critical literature analysis methodology following content analysis. The examination of related literature revealed that the selection of a research paradigm is influenced by the philosophical assumptions and the research objectives or research questions for a particular study. This paper offers lucid description to novice researchers in the management accounting domain especially in selecting the most appropriate research design for addressing the research questions.

**Keywords:** Research Paradigm, Interpretivism, Epistemology, Critical realism, Pragmatism, Philosophical assumptions.

## 1. Introduction

Research is a systematic enquiry which aims to produce and enhance knowledge (Ernest, 1994:8; Hussain, Elyas, Nasseef, 2013). In the same vein, Pankaj and Kavitha (2017) stated that “research is a process of creating and transforming knowledge and understanding of the world around us”. The emphasis from these two definitions is on the systematic creation and enhancement of knowledge in the world we live in. In every study, the researcher always conveys certain beliefs and philosophical assumptions (Creswell, 2009) and these antecedent assumptions affect the quality of the study (Dainty, 2007), as they formulate and elucidate the structure of the research as well as the techniques for collecting and interpreting data (Easterby-Smith, Thorpe, & Lowe, 2002). Sporadically, the growing assortment of ideas and views about various methodologies and paradigms exasperates neophyte researchers, hence, they compromise the quality of their study as they overlook the philosophical assumptions underpinning their study.

In the past decade, numerous studies on SMEs have been conducted in the business world resulting in their significant contribution to the global economy (Kithae, Gakure & Munyao, 2012). However, there has been limited research in the management accounting domain in SMEs whereas prior studies have indicated that, in a globalised ever-changing business environment, management accounting is an essential tool in the success and survival of business organisations as they promote efficiency and improve the competitive edge (Mitchell & Reid, 2000; Folk et al., 2002; Horngren et al., 2009). Conducting a meaningful study in the SME sector is not that easy since SMEs tend to hide and withhold information presumably because of the unwillingness to remit taxes to the government (Dlamini, 2017). What is the methodological path that should be followed to obtain a deeper understanding of management accounting in SMEs? Literature (Chenhall & Langfield-Smith, 1998; Haldma & Laats, 2002) reveals that various management accounting studies have been conducted either

following the quantitative approach or qualitative approach (Hopwood, 2007; Vaivio, 2007; Zoubi, 2011; Ali, 2014; Clerkin, 2017; Tripathi, 2017). The same has been limited regarding management accounting among SMEs with Ahmad (2014) who adopted the positivist paradigm, whilst Clerkin (2017) and Tripathi (2017) followed the interpretivist paradigm.

This paper aims to elucidate research paradigm for novice management accounting researchers who are conducting heuristic studies among SMEs. The study accurately delineates and scrutinizes different research methodologies, approaches and methods in the fields of social sciences and management accounting research. This paper begins with a succinct discussion about research apropos to management accounting, especially in small businesses. Fraser (2014) postulated that most of the researchers in the accounting domain underpin their study in a particular philosophy unaware of their philosophical assumptions. Therefore, an overview of major research philosophies concerning their philosophical antecedents and methods regarding management accounting research will be provided. The paper is organized as follows: The methodology that was followed in this paper is discussed in the next section, followed by the philosophical assumptions and research paradigms. It then discusses the important aspects to be considered when researching management accounting. The paper ends with the conclusion section and gives recommendations drawn from the review of the literature.

## 2. Methodology

The research adopted a critical literature analysis, integrating various literature associated with research paradigms, management accounting studies and SMEs. Several scholars have used critical literature analysis methodology (Waweru, 2010; Kamal, 2015; Templier & Paré, 2015; Ovunda, 2015; Dlamini & Schutte, 2020). The study had a formulated objective, existing literature was searched and screened for inclusion. The study extracted data, assessing the quality of

the primary studies and analyzed data as suggested by Templier and Paré (2015) who formulated the six generic steps for critical literature analysis. Various sources of literature were consulted and secondary data were analysed using content analysis. Textbooks and journal articles on research paradigms, management accounting and SMEs were consulted.

### 3. Philosophical assumptions

The researcher needs to understand their philosophical assumptions within the adopted paradigm to ensure the quality of the research (Amaratunga, Baldry & Sarshar, 2001). These assumptions set in motion the journey through the research process and guide the researcher in making the most accurate methodological decisions (Saunders et al., 2007; Scotland, 2012) as shown in figure 1. Philosophical assumptions are ontology, epistemology, methodology (Easterby-Smith et al., 2002; Saunders et al., 2007) and axiology (Heron & Reason, 1997:287; Denzin & Lincoln, 2011).

Figure 1: Methodological path

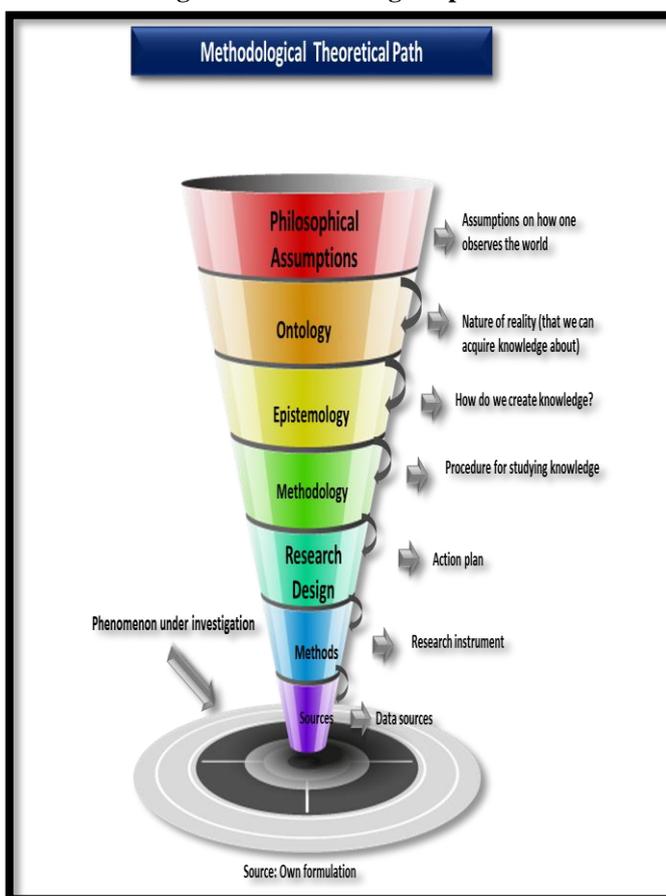


Figure 1 above advocates that the researchers' ontological position influences the choice of the epistemological position, which influences his or her research methodology.

#### A. Ontology

Ontology concerns the study of being and the inquiry about whether reality is a result of solitary consciousness or is extrinsic from the conscious. Thus, ontology is allied with a vital query of whether objects ought to be observed as subjective or objective. Ontological assumptions consider what is there that can be known about a phenomenon (Guba

& Lincoln, 1994). There are two major ends in the spectrum, realism and relativism. Realism is the view that the social world is made up of objects that have an independent existence from the individuals living in it including the researcher (Hopper & Powell, 1985; Ryan et al., 2002; Cohen et al., 2007:7). In this regard, a quantitative research approach is most suitable for enquiry that is linked with natural sciences (Laughlin, 1995; Walliman, 2011), as it tests theory from existing knowledge using the statistical models (Elo & Kyngas, 2008). Relativism says that there is no absolute truth that reality is subjective, varying from one individual to another (Guba & Lincoln, 1994:110; Ryan et al., 2002). Reality is mediated by our senses through individual construction as we interact with the study objects, thus, there are multiple realities (Frowe, 2001:185; Mack, 2010). Taylor (2010:62) stated that a qualitative approach best fits in social science research as it allows the researcher to be a social actor and interact with the study phenomenon in an attempt to gain a deeper understanding.

#### B. Epistemology

Epistemology relates to the nature of knowledge about a phenomenon, it is a means of apprehension and elucidating what we know about reality (Crotty, 2003:3; Cohen et al., 2007:7). The epistemological assumption is concerned with the creation, acquisition and dissemination of knowledge; simply put what it means to know (Bryman, 2004; Scotland, 2012). It is essential for the researcher to establish the source of belief, in determining what is true and justifying a belief. There are two major ends in the continuum, objectivism and subjectivism. Objectivism holds the position that human perception and consciousness do not affect the existence of the real object, reality exists independently of the researcher (Saunders, Lewis & Thornhill, 2008; Schutte, 2011). Whilst subjectivism is of the view that meaningful reality is constructed through interaction between humans and their world (Grix, 2004:83). To understand the social world, one must participate in it and individuals studying the same phenomenon may construct meaning in various ways (Crotty, 1998:9).

#### C. Axiology

Axiology is a philosophical assumption that lucubrates judgments about the value of information (Saunders et al., 2008). Kivunja and Kuyini (2017) further stated that axiology refers to ethical and aesthetic issues that one should consider when planning to conduct a study. In other words, axiology is the philosophical study of the role of values and ethics in research, thus, whether the study is carried out with or without the imposition of values of the researcher. Accordingly, the assumption considers how the values brought by the researcher affect or influence the findings of the study. In this regard, for the results of the study to be credible, your values have a role they play in all the stages of the research process, as you will demonstrate them in all the stages of the process. Furthermore, Saunders et al. (2008) emphasised that the philosophical approach and data collection techniques that you choose in a study reflect the values of the researcher. In a quantitative study, the researcher is value-free as the researched knowledge is absolute and factual not affected by the value brought by the researcher while in a qualitative study the researcher must make their values known in a study, further admit the value-laden nature of the study and information collected from the

field (Denzin, 1989; Creswell, 2009). A qualitative researcher should divulge their values and preconceptions before and during the inquiry since one is a social actor during the study.

#### **D. Methodology**

The methodology is associated with appropriate techniques taken in inquiring knowledge or the truth in a study. Guba and Lincoln (1994:108), cited by Scotland (2012) stated that methodology is more concerned with, how an individual can go about discovering what they believe to be unknown. Methodology deals with what, where, why, how and when can data be collected and analysed. Methods are discrete techniques used to gather and analyse data (Crotty, 1998:3). Burrell and Morgan (1979) stated that methodology has a nomothetic and idiographic view. In the nomothetic view, surveys and questionnaires are the most used research methods as the approach relies on hypotheses and scientific exactness. They further stated that the idiographic view suggests that individuals understand the social world only by getting close to the object and explore it in detail using case studies, observations and interviews. Under the nomothetic view, the researcher gathers more quantitative data whilst in the idiographic view, the researcher gathers more qualitative data. Therefore, methodology refers to the research design, methods, techniques and procedures applied by the researcher to generate reality about the phenomenon.

#### **4. Research paradigm**

Reviewing research philosophy reduces methodological errors (Kvale, 1996; Hughes & Sharrock, 1997; Dainty, 2007) and the research paradigm should be appropriately elucidated to select the most relevant research design approach that will properly address the research questions (Schutte, 2011). According to Guba and Lincoln (1994:105), a research paradigm is "the basic belief system or worldview that guides the investigator, not only in choices of the method but also in ontologically and epistemologically fundamental ways".

A research paradigm is a set of common beliefs that assert how problems should be understood and addressed when conducting research (Scotland, 2012). Healy and Perry (2000) and Mack (2010) agreed that a paradigm is a belief system or a theory or a worldview or a framework that guides the way we do things, thus, the philosophical assumptions influence the research paradigm and they develop the lens which we use to see the world (Covey, 1989). There are four major research paradigms, *videlicet* positivism, Interpretivism, (Guba & Lincoln, 1994) critical theory and pragmatism (Healy & Perry, 2000; Saunders, et al., 2008).

#### **A. Positivism**

Positivism is a scientific paradigm that uses mathematical analysis tools to study a phenomenon in an objective manner (Healy & Perry, 2000; Delanty, 2005:11). Auguste Comte first developed a positivist approach in the 1850s with a belief that reality can be observed. Comte attested that, if activities in the physical world work according to absolute laws, so are the activities in the social world (Crotty, 1998). Positivist holds that the society operates according to general laws; therefore, the researcher is the spectator of an objective reality, hence, they can objectively observe the object under

study without interfering with it (Levin, 1988; Mack, 2010). This philosophical approach asserts that it is the responsibility of the researcher to test an existing theory or develop a hypothesis (Hassard, 1999) or research questions using quantifiable measurement since scientific knowledge is positively verifiable (Healy & Perry, 2000; Delanty, 2005; Doran, 2014). A positivist paradigm's ontological position is one of realism where reality exists and is discovered without mediation by the researcher's senses and conscience (Sayer, 1993; Pring, 2000:59; Oppong, 2014).

The epistemological position of positivism is one of objectivism. The researcher and the study phenomena are independent entities; hence, meaning resides in the object. Positivist philosophy follows the beneficence axiology that requires that the researcher should aim at minimising any risks or mistakes that may occur during the research (Kivunja & Kuyini, 2017). In this regard, the researcher maintains an objective stance as they are independent of the data, all inquiries should be value-free and scientific methods should be used to gather data objectively. Positivist thought asserts that researched knowledge is absolute, factual and value-free, therefore, the methodology applied in natural science should be adopted for social science studies and the reality is measured using quantitative methodological tools (Scotland, 2012). The positivist researcher can acquire information using quantitative research techniques such as questionnaires, structured interviews, and statistical models as it is linked to a deductive approach (Saunders et al., 2007; Walliman, 2011). Schutz (1963), a critic of positivism, argued that pattern and behaviour are influenced by human action; hence, the social world is mercurial so the laws of positivism are inapplicable in the social world. Furthermore, Bryman (2008) and Ernest (1994) argued that the paradigm repudiates human individuality and uniqueness treating humans like natural objects, hence, it puts the same lens in viewing social and natural sciences.

#### **B. Interpretivism**

Ludwig Wittgenstein rejected the positivist position of using natural science methods in a social world and he influenced the development of the interpretivism paradigm (Winch, 1958), thus, it can be referred to as anti-positivism or constructivism as it requires social actors to construct meaning (Saunders, et al., 2008; Mack, 2010). The main tenet in the interpretivism is that there is no single reality or truth, so the reality needs to be unearthed through the participant's views (Mack, 2010; Scotland, 2012). The researcher is an active agent, not a detached observer to construct meaning in the study. The ontological position of interpretivism paradigm is of relativism (Scotland, 2012; Tripathi, 2017) since, in the real world, there is no objective knowledge; hence, knowledge depends on the reasoning and thinking of humans. Interpretivism adopts a subjectivism epistemological position, which is based on the real-world phenomenon. Ernest (1994: 26) stated that the main purpose of the interpretivism paradigm is to 'illuminate the general through the particular'. The researcher and the researched object are presumed to be interactively linked and the knowledge of the researcher inescapably influencing the constructed meaning (Guba & Lincoln, 1994:110).

Interpretivism philosophy holds a balanced axiological assumption, which assumes that the values of the researcher

are reflected in the outcome of the study (Kivunja & Kuyini, 2017). The researcher acknowledges that biases are present in the study and the research is value-laden and value-bound, ergo, individual values are honoured (Lincoln, Lynham & Guba, 2011). The paradigm uses meaning oriented methodologies, which rely on a subjective correlation between the investigator and the investigated object. Interpretivism attempt to derive meaning from a study through a comprehensive examination of the object by methods such as in-depth face to face interviews, open-ended questionnaire, focus groups interviews and open-ended observation (Chowdhury, 2014). These methods generally gather qualitative data. Hammersley (2003), criticised the interpretivism paradigm on the basis that, its descriptions are too vague and a small number of cases are considered, hence provides a platform for narrow conclusions. In an attempt to avoid this criticism, triangulation in social science studies has been suggested by various scholars as a solution to the critics (Silverman, 2004; Chowdhury, 2014).

### C. Critical realism

Roy Bhasker first developed a critical realism approach with a belief that the society and its individuals are mutually interdependent on one another (Walliman, 2011). This philosophy combines the philosophy of science (transcendental realism) with the philosophy of social science (critical naturalism) to illustrate an interface between the social and natural worlds (Nielsen, 2002). According to Doran (2014), individuals' actions influence the society whilst those actions are influenced by the society they belong to, therefore, the reality is embodied in the interrelationship of the phenomenon and the researcher. Gray (2014) also postulated that some aspects of a phenomenon may be appropriately understood only after a close examination of the social structures of that phenomena. Hence, we can only obtain full knowledge of the study object after being exposed to its various aspects.

Critical realism was developed as an alternative for the positivist and interpretivist paradigms in an attempt to suit studies which were not pure positivist and pure interpretivist; however, it draws components from both paradigms in its delineation of ontology and epistemology (Denzin & Lincoln, 2011). The ontological assumption of critical realism assumes that there is a single reality which is stratified but with multiple interpretations, hence, the reality is real but probabilistically apprehensible (Fleetwood, 2013). The epistemological position of critical realism is that of modified objectivism which posits that knowledge is socially constructed; hence, the researcher is a social actor. Besides, this paradigm merges features of qualitative and quantitative methodologies in a study (Lorenz, 2015), thus, critical realism is a general methodological framework for study which is not associated with any specific set of data collection methods (Fletcher, 2017).

### D. Pragmatism

Pragmatism is a world view that is not oriented to any specific philosophical position but supports the view that any research must be guided by antecedent assumptions which will give most valid results for the study (Creswell, 2007; Creswell & Clark, 2011). This paradigm argues that research questions are the most essential determinants in adopting epistemology, ontology, axiology and methodology in a

study (Saunders et al., 2009). Gray (2014) also stated that different philosophical assumptions are adopted in different aspects of the study as long they are capable of guaranteeing best results. In this regard, the paradigm fits best where choosing between positivist and interpretivist is somewhat unrealistic in practice. Also, the philosophy holds that there are either multiple realities or single realities and knowledge are subjective or objective depending on the research questions.

The axiological assumption in pragmatism holds a position that the researcher adopts both the subjective and objective point of view (Saunders et al., 2009). As guided by the research questions the study can adopt multiple method designs, both quantitative and qualitative data is collected and analysed. Collis and Hussey (2009) argued that research methodologies should be associated with a specific research paradigm, such as the fact that surveys are for positivist paradigm whereas phenomenological and action research are for the interpretivist paradigm. Nevertheless, Hartley (1994) cited by Doran (2014) asserted that research methodologies are not exclusively associated with any paradigm.

### 5. Research in management accounting

According to Burrell and Morgan (1979), there are three prepotent management accounting paradigms, scilicet: mainstream, interpretive and critical paradigms. Mainstream paradigm is purely positivist (Chua, 1986; Masztalerz, 2013) and the reality is objective and external from the conscious of the researcher. Mainstream paradigm researchers do not view human beings as social reality initiators but as objects. The epistemological position of mainstream management accounting paradigms holds that the theory and observations are independent of each other even if observations are used to prove a theory (Chua, 1986). Lukka (2010) supported the mainstream paradigm in accounting studies, asserting that accounting rules and regularities are empirically revealed, verified and authenticated objectively. Mainstream paradigm is mainly used in management accounting studies for large entities (Masztalerz, 2013).

The interpretive management accounting paradigm envisages social reality as a product that is socially constructed through subjective interactions with experienced individuals who are social actors. The interpretivist researcher follows a subjective epistemological position in an attempt to understand and explain management accounting practices in various organisational settings (Hopwood, 1983; Masztalerz, 2013) and relies mostly on case studies (Davila & Oyon, 2008). Critical paradigm asserts that social reality is both objective and constructed subjectively from experienced individuals who are social actors. The epistemological position of critical management accounting researchers can be that of positivist or interpretivist (Ahrens et al., 2008). Critical researchers prefer non-mathematical or statistical modelling methods for data collection with more emphasises on in-depth past elucidations and ethnographic studies that reveal their social linkages (Masztalerz, 2013).

Management accounting is believed to be a social practice and not a natural phenomenon (Ryan, et al, 2002). Management accounting researchers must look for rules which are products and also form social behaviour and not for generalisations or universal laws. Knowledge in

management accounting domain is continuously evolving as new modern management accounting practices are developed on account of rapid changes in the modern business world. The researcher needs to understand the perceptions of management accountants in the application of MAPs, hence, the researcher has to be an active social actor. The ontological assumptions reflect that the reality in the social world is a result of individual management accountant's consciousness and is therefore subjectively created (Creswell, 1998).

In the management accounting domain, researchers' generally choose a quantitative or qualitative approach or a combination of the two (Ryan et al., 2003). Quantitative research is a study that collects numeric data and analyses it using statistical techniques to explain an object or to prove or disapprove a hypothesis (Patton, 1987; Creswell, 1994; Bryman, 2004; Johnson & Onwuegbuzie, 2004:18). Hoepfl (1997) attested that the use of a qualitative or quantitative approach is based on the philosophical assumptions of the researcher. It is worth noting that in positivism, the reality is objective, it does not depend on the researcher and the research is value-free, hence deductive forms of theories and hypotheses can be tested. In quantitative research approach techniques such as questionnaires, structured interviews, and statistical models are mostly used (Saunders et al., 2007). A quantitative research method is a deductive approach which is most suitable for positivist research that is linked with natural sciences (Healy & Perry, 2000; Easterby-Smith et al., 2002; Walliman, 2011).

In the past, most of the management accounting studies were conducted utilizing a quantitative approach (Chittenden et al., 1990; Firth, 1996; Chenhall & Langfield-Smith, 1998; Haldma & Laats, 2002; Luther & Longden, 2001), but of late several qualitative studies in management accounting is being conducted (Hopwood, 2007; Vaivio, 2007; Zoubi, 2011; Ali, 2014; Clerkin, 2017; Tripathi, 2017). Muela-Meza (2006:6) defined qualitative research as a process of inquiry where data is drawn from the context in an attempt to derive meaning, explanation of the observed phenomena. Qualitative research gathers information which is derived by non-statistical procedures, data is not usually in the form of numbers and the approach is more subjective (Hussey & Hussey, 1997; Ali & Yusof, 2011). Sale, Lohfeld and Brazil (2002), as well as Parker (2003), agreed that a qualitative approach is most suitable for interpretivist paradigm as it seeks to study the social world at close range. Moreover, its main objective is to use the inductive investigation to develop theory through describing, decoding and translating (Easterby-Smith et al., 2012; Bryman & Bell, 2011).

The main authors in the field of management accounting research attest that qualitative approach might be more useful in searching the interrelationship between management accounting systems and the environment (Peters & Waterman, 1982; Kaplan, 1985; Hopper & Powell, 1985; Scapens, 1990; Otley & Berry, 1998; Hopwood, 2007; Vaivio, 2007). Parker (2011), as well as Clerkin (2017), stated that qualitative research in management accounting provides a rich understanding of MAPs in an organisation since the phenomenon is researched at close range. The above assertion suggests that the interpretivist paradigm will give the researcher a wider scope in making sense of human

actions and addressing questions such as 'how' and 'why' on the application of MAPs. The paradigm enables the interpretivist management accounting researcher to articulate how MAPs change over time (Scapens, 2006). Many studies in management accounting adopted an interpretivism paradigm (Ryan et al., 2002; Yin, 2003; Ahrens et al., 2008; Ali, 2014). However, the selection of the research philosophy is influenced by the researcher's worldview and philosophical assumptions.

## 6. RESEARCH IN SMALL AND MEDIUM SIZED ENTERPRISES

SMEs turn out to be the most significant aspect of global economic development and growth, then many researchers seek to gain a deeper understanding of the activities and practices of these entities (Hill & McGowan, 1999). A plethora of research in SMEs activities has been conducted, however, there is a slow uptake in the research methodologies that best fit for SMEs especially in management accounting research. Most of the studies on research methodology in management accounting were concentrating on large entities, with little or no attention to small businesses. It is essential to appreciate the differences that exist between SMEs and large entities, as they conduct different business activities (Carson et al., 1996). SMEs tend to hide as they want to avoid remitting taxes, they operate as a stigmatised group unwilling to part with information. SME owners will not realise valuable information if they do not trust the researcher as they seek to avoid the tax man and protect their innovative ideas. Rodríguez and Opazo (2009) also stated that SME owners only value truth and knowledge as long they perceive it to be useful for the organisation.

SMEs activities also differ according to location and the level of economic development; SMEs in Africa are very small in size as compared to the other part of the world. For instance, a SMEs in Canada and the USA might be classified as a large in Africa. In the Canada and USA, SMEs are businesses with less than 500 employees with an annual turnover of less than US\$25 million (Beyene, 2002), whilst in Egypt, Kenya and Zimbabwe, SMEs are businesses with less than 100 employees (CAPMAS, 2016). Therefore, activities and the reality or truth about SMEs will vary also according to the part of the world in the study is conducted.

The researcher has to understand the nature of small businesses and his or her worldview will help in understanding the research phenomenon (SMEs) (Creswell, 1994). According to Eisner (1991), the researcher should take note of the personality, attributes and uniqueness of the research participants and pay attention to philosophical issues instead of concentrating on the empirical investigations. This is essential, especially when conducting studying a stigmatised group or behaviour. Hill and McGowan (1999) argued that small firms research follow a relativist ontological position, as each person construct their reality and there are multiple realities in the real world. They further stated that the researcher should interact closely with the study object, in this case, the accountants in small firms or SME owner (Hill & McGowan, 1999), thus an interpretivist epistemological position.

Researchers in SME studies are more concerned with a rich understanding of the activities of SMEs so contextual

analysis, in-depth analysis and longitudinal examination enable the researcher to capture reality (Sparrow, 1999). An interpretivist researcher focuses on understanding rather than explanation (causal relationship), thus, their methodological choices follow a qualitative research approach (Oppeng, 2014). It is believed that the interpretivism paradigm mainly favours qualitative methods such as case studies (Silverman, 2000; Willis, 2007; Nind & Todd, 2011). Sale, Lohfeld and Brazil (2002), as well as Parker (2003), agreed that a qualitative approach is most suitable for the interpretivist paradigm as it seeks to study the social world at close range. Hill and McGowan (1999), as well as Piperopoulos (2010), suggested that researchers conducting a study on small businesses should adopt an interpretive epistemological position to gain a deep understanding of the nature of SMEs (Sparrow, 1999). Studies that have followed the positivist position were more concerned about the empirical investigations. Ahmad (2012) in his PhD studies on the use of MAPs on SMEs stated that “the study will use a quantitative approach because data collection will involve a large scale survey rather than interviews”.

Some PhD studies on SMEs have adopted the interpretivist philosophy (Nyamwanza, 2014; Shemi, 2014; Dumbu, 2014; Tripathi, 2017). This suggests that studies which are both empirical investigation and having a deeper meaning on the research phenomenon might adopt the pragmatism paradigm as it combines both aspects. The selection of the research paradigm in studying management accounting among SMEs relies on the objectives of the studies.

## 7. Conclusion

This paper critically reviewed the philosophical assumptions and the main research paradigms usually adopted in social sciences research. The juxtaposition of the research paradigms and the philosophical assumptions was examined. The paper also discussed important aspects to be considered when researching management accounting and SMEs domain. In conclusion, the positivist paradigm is ontologically realistic, epistemologically objectivism, axiological beneficence and using quantitative research techniques such as questionnaires, structured interviews, and statistical models as it is linked to a deductive approach. Interpretivism paradigm is ontologically relativistic, epistemologically subjective, holding balanced axiology and following a qualitative approach using in-depth face to face interviews, open-ended questionnaire, focus groups interviews and open-ended observation as it is linked to inductive approach. Critical realism is in between positivism and interpretivism, it has a modified realistic ontology, modified objectivistic epistemology and any data collection method is suitable for this paradigm. Pragmatism paradigm contends that research questions are the most essential determinants in adopting epistemology, ontology, axiology and methodology in a study as it is linked to the abductive approach. In the selection of a research paradigm in management accounting studies that are conducted among SMEs, the researchers should take into account the aspects influencing SME business operations. The research objectives or research questions and the philosophical assumptions should inform the selection of the research paradigm. Further studies should critically review the

relevance of each research paradigm in management accounting studies.

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