Research Methodology in Accounting Research

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Abstract: This paper focuses on the research methodology commonly employed in accounting research. It is noted here that the process (methodology) of doing research is easily delineated when the philosophical assumptions underpinning such research are clearly identified. In this context, the Burrell and Morgan Model that identified four distinct but related assumptions about the nature of social science and society is adopted. These assumptions include ontological, epistemological, human nature, and methodological assumptions; these assumptions are discussed as they relate to accounting research. Similarly, the paper discusses the research paradigms proposed by the Burrell and Morgan, the criticisms of the, the Chua framework and the paradigms of accounting research.

Keywords: Research, Methodology, Accounting

I. Introduction

First of all, it is important to clarify the concepts ‘methodology’ and ‘methods’ as the discussion in this paper centres on them. As Ryan et al. (2002, p.36) stated, methodology is “the process (methodology) of doing research” and methods are “the particular techniques used” in a particular research. Similarly, the process of doing research and the techniques used in that particular research are underpinned by some philosophical assumptions that normally differ based on the nature of that research and the views of the researcher (Burrell and Morgan, 1979). Consequently, the researcher’s views will either implicitly or explicitly influence the types of research questions to be asked, the nature of data to be gathered, the kind of methods to be used, and ultimately, the process to adopt in carrying out such research (ibid.).

It is, therefore, important to note that the process (methodology) of doing research is easily delineated when the philosophical assumptions underpinning such research are clearly identified (Blaikie, 2007). In this context, Burrell and Morgan (1979) identified four distinct but related assumptions about the nature of social science and society, these include ontological, epistemological, human nature, and methodological assumptions; these assumptions are discussed as they relate to accounting research. Similarly, the paper discusses the research paradigms proposed by the Burrell and Morgan, the criticisms of the, the Chua framework and the paradigms of accounting research.

II. Literature Review

2.1 Philosophical Assumptions about the Nature of Social Science and Society

First of all it is important to explain why it is important to start with a discussion on philosophical assumptions; even though accounting background is number crunching not philosophy. Therefore, this section is devoted towards addressing this very important issue. As the underlying foundation of any scientific work, postulation of hypothesis or even the development of a theory is unpinned by some assumptions.

However, it is important to stress here that there is no ‘best’ way of conducting research using some specific assumptions. Hence, the assumptions of a researcher will largely depend on a particular approach the researcher adopts in his inquiry about the truth. Similarly, a researcher’s assumptions are shaped and influenced by different factors; these include the experience of the researcher in a particular field, psychophysiological expressions of the researcher, educational level attained, and some environmental factors external to the researcher (Blaikie, 2007; Burrell and Morgan, 1979; Deetz, 1996; Willmott, 1993).

In this context, philosophical assumptions are discussed based on the four different approaches mentioned above (Burrell and Morgan, 1979). These approaches are neatly presented in the subjective-objective dimension, as depicted in Table 1 Below.
2.1.1 Ontological Assumptions

First of all, ontology is a branch of philosophy that deals with the nature of ‘being’ and ‘reality’ and the term ‘ontological’ refers to “philosophical questions relating to the nature of being and the reality, or otherwise, of existence (Somekh, 2011, p. 326). In this context, Burrell and Morgan (1979, p.1) stated that ontological assumptions are basically concerned with the “… very essence of the phenomena under investigation”, that is the nature of reality. Hence, the basic ontological question faced by a researcher is “…whether the ‘reality’ to be investigated is external to the individual … or the product of individual consciousness”.

As stated in the literature that the term reality is a name we give our collections of tacit assumptions about what is. We bring along these realities to give meaning to our interactions. Hence, the key point to be noted here is that our realities are defined by the caricature of interactions in the various aspects of our lives.

As can be seen in Table 1 above, the ontological assumptions, as modelled by Burrell and Morgan, can be identified under the subjective-objective dimension. This is about the question of whether ‘reality’ subsists within individual mind (nominalism) or being a product of an objective nature (realism).

Affirming this point, Burrell and Morgan (1979, p. 4) stated that: “the nominalist position revolves around the assumption that the social world external to individual cognition is made up of nothing more than names, concepts and levels which are used to structure reality. The nominalist does not admit to there being any ‘real’ structure to the world which these concepts are used to describe.”

However, the realist point of view about the reality is that “…there is only one reality” which is external to the researcher and can be objectively described (Collis and Hussey, 2009, p. 59), because the reality is made up of real, hard and tangible structures (Burrell and Morgan, 1979). In this context, Morgan and Smircich (1980) provided six ontological assumptions, these assumptions are provided in Table 2 below:

<table>
<thead>
<tr>
<th>Category</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reality as a concrete structure (naïve realism)</td>
<td></td>
</tr>
<tr>
<td>Reality as concrete process (transcendental realism)</td>
<td></td>
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<tr>
<td>Reality as a contextual field of information (contextual relativism)</td>
<td></td>
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<tr>
<td>Reality as a symbolic discourse (transcendental idealism [Kant])</td>
<td></td>
</tr>
<tr>
<td>Reality as social construction (social constructionism [socially mediated idealism])</td>
<td></td>
</tr>
<tr>
<td>Reality as a projection of human imagination (idealism [Berkeley])</td>
<td></td>
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</tbody>
</table>

In the context of Morgan and Smircich’s six ontological assumptions provided above, Ryan et al. (2002) opined that the world can be viewed via different alternatives ranging from the concrete structure to the projection of human imagination. This, in essence, provides us with the instrument of viewing reality from the most objective as well as the most subjective points of view respectively.

That said, it is now appropriate to discuss the ontological assumptions underpinning accounting research. As the research in accounting mostly aims at investigating the performance of entities, and considering the research problem that normally focuses on the performance variables that can be measured objectively using scientific enquiry approach that is independent of the researcher. Hence, the ontological assumptions normally underpinning accounting research are based on the realist perspective. However, it is important to explain the type of realist assumptions underpinning accounting research, as there are six categories of ontological
assumptions, i.e. shallow realist, conceptual realist, cautious realist, depth realist, idealist, and subtle realist (Blaikie, 2010).

Accounting researchers normally adopt the cautious realist perspective as it is believed that, as humans, it is “impossible” for us to perceive the reality “accurately”, even though it is external to us (Blaikie, 2010, p. 15). Therefore, there is the need for us, as accounting researchers, to be cautious about our assumptions considering the inherent human imperfections (ibid.).

2.1.2 Epistemological Assumptions

The term ‘Epistemology’ is also a branch of philosophy that is concerned with the theory of knowledge and the use of knowledge to know the world around us (Jary and Jary, 2000). Hence, an epistemological assumption is concerned with the validity of knowledge and what really constitutes an acceptable knowledge in a particular field (Bryman and Bell, 2007).

In this regard, Burrell and Morgan (1979) distinguished between the two perspectives via which, one can understand the world around him and communicate knowledge about it. These, as depicted in Table 1 above, are anti-positivism and positivism perspectives, which are along the subjective-objective dimension respectively.

Burrell and Morgan (1979, p. 2) opined that a researcher needs to address the question as to whether “knowledge is something which can be acquired”, that is from the positivist perspective or from the anti-positivist perspective as “something which has to be experienced”.

Looking at knowledge from the positivist perspective, it is argued that the social world can be studied by applying the same principles and by using the same procedures as used in the natural science (Bryman and Bell, 2007). In this regard, the positivists argue that a researcher can maintain his independent position while providing an objective view of the world being investigated.

On the other hand, the anti-positivist theorists argue that the principles and procedures used in the natural sciences cannot and should not be used to study the social world (ibid.). The argument of the anti-positivists is based on the fact that “the subject matter of the social sciences – people and their institutions – is fundamentally different from that of the natural sciences” (Bryman and Bell, 2007, p. 16). Therefore, the anti-positivist view is that the social world “can only be understood from the point of view of the individuals who are directly involved in the activities which are to be studied” (Burrell and Morgan, 1979, p. 5).

As explained under the ontological assumptions, it is important to also explain the epistemological assumptions adopted in accounting research. In this regard, considering the research questions focusing on the performance variables that can be measured objectively using scientific enquity approach that is independent of the researchers, accounting researchers normally adopt the positivist perspective.

However, a falsification 1 approach is normally considered appropriate in accounting research; as it is believed to cater for the short-comings associated with the ‘pure’ positivist view (Blaikie, 2010). It is important to note here that the falsification approach towards investigating the accounting problem is closely associated with the cautious realist approach normally adopted under the ontological assumption underpinning accounting research.

2.1.3 Assumptions about Human Nature

Assumptions here are on human beings and their relationship with their environment. According to Burrell and Morgan (1979) model, as depicted in Table 1 above; there are two approaches to assumptions about human nature. These are voluntarism and determinism based on the subjective-objective dimension respectively. The voluntarism and determinism are two opposing perspectives on the views of human beings in relation to their environment; these can be neatly presented in Table 3 below:

<table>
<thead>
<tr>
<th>Voluntarism (subjectivist dimension)</th>
<th>Determinism (objectivist dimension)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humans operate in mechanistic environment</td>
<td>Humans operate in deterministic environment</td>
</tr>
<tr>
<td>Humans are product of their environment</td>
<td>Humans are creators of their environment</td>
</tr>
<tr>
<td>Humans are conditioned by their environment</td>
<td>Humans control their environment</td>
</tr>
<tr>
<td>Humans are marionette in their environment</td>
<td>Humans are masters of their environment</td>
</tr>
</tbody>
</table>

Source: (Burrell and Morgan, 1979, p. 2)

1 This is normally known as a ‘hypothetico-deductive method’ (Blaikie, 2010, p. 21). The hypothetico-deductive method is based on theory testing by using available data.
The above division on the assumptions about human nature makes out the “philosophical debate between the advocates of determinism on one hand and voluntarism on the other” (Burrell and Morgan, 1979, p. 2). Assumptions about humans in accounting research are normally made from the objectivist perspective.

2.1.4 Methodological Assumptions

As explained above, methodology entails the ‘process’ of doing research (Ryan et al., 2002), which in turn requires logical approach to answering research questions raised in the course of literature review (Blaikie, 2010). It is important to note here that the aforementioned ontological and epistemological assumptions discussed above, as well as the assumptions about human nature constitute the foundation for any methodological assumptions about any research. In this regard, the Burrell and Morgan’s (1979, p. 3) subjective-objective dimension of methodological assumptions are discussed.

From the objective standpoint of the methodological assumption, nomothetic assumptions are employed by considering that the social world can be understood using systematic approach normally used in the natural sciences. On the other hand, the subjective methodological approach is based upon ideographic assumptions that the social world can best be understood by obtaining the “first-hand knowledge of the subject under investigation” (Burrell and Morgan, 1979, p. 6).

Consistent with the ontological and epistemological assumptions adopted above, this study adopts the objectivist approach towards answering the research questions raised regarding the effect of Government control on the performance of upstream oil and gas companies operating in Nigeria. Furthermore, a deductive strategy is used which is consistent with the hypotheses developed in chapter two. Therefore, it is important to clearly indicate the strategy being adopted within the objectivist approach.

As Blaikie (2010) stated, the natural science involves three major research strategies, these include the inductive, deductive and retroductive research strategies. These strategies differ fundamentally from one another in terms of their ontological and epistemological assumptions, starting points of an enquiry, logic of enquiry, use of concepts and theories, styles of explanation, and the status of their products, as succinctly stated by Blaikie (2010, p. 56-56):

“one involves collecting data and generalizing from them; another starts by finding a suitable theory that will provide some hypotheses to test; a third searches for underlying causal mechanisms.”

Furthermore, as Blaikie (2010, p. 8) stated, the aim of an inductive strategy is to establish a theory to be used as pattern of explanations, it begins with the collection of data in order to generate such theory, when the theory is produced it is used to explain further observations. On the other hand, the aim of the deductive strategy is to test theories so as to eliminate the false ones and corroborate the survived ones. Thus, a deductive approach begins with the identification of a regularity to be explained, construct a theory and deduced some hypotheses, and then tests the hypotheses by matching them with data. The retroductive research approach combines elements of both the inductive and deductive approaches. Hence, a deductive approach is adopted in this study.

2.2 Assumptions about the Nature of Society

Burrell and Morgan (1979) stated that assumptions about the nature of society can be viewed from the standpoint of the ‘order-conflict’. On one hand, the ‘order’ view of the society encompasses stability, integration, functional coordination, and consensus. On the other hand, the conflict view of the society encompasses change, conflict, disintegration, and coercion.

In this regard, it can be deduced that the ‘order’ view entails explanation about the ‘nature of social order and equilibrium’ and the conflict view entails explanation about the ‘problems in the social setting’. However, ‘regulation’ and ‘radical change’ will be adopted in place of ‘order’ and ‘conflict’ respectively (Burrell and Morgan, 1979).

2.3 Assumptions Underpinning Accounting Research

As mentioned above, studies in accounting adopt normally the cautious realist perspective as it is believed that it is impossible for us to perceive the reality accurately, even though it is external to us. Therefore, there is the need for us, as accounting students, to be cautious about our assumptions on the factors affecting the performance of the entities being studied. We are being cautious in the sense that not all factors affecting the entities’ performance can be accurately captured by our model (s). Hence, we can only draw conclusions based on the variables employed in our models.

Secondly, our studies normally adopt a falsificationist approach in trying to determine the extent to which some factors affect the performance of the entities being studied. Hence, a deductive strategy is commonly adopted in order to test the hypotheses being developed.

Overall, our assumptions about the factors affecting performance of the … may not be completely accurate. However, considering the … our assumptions may be considered relatively realistic and the methodology to be used fairly robust. Nonetheless,
2.4 Research Paradigms

The term “paradigm” is defined differently by different people, see for example Burrell and Morgan (1979); White (1983); Hopper and Powell (1985); Chua (1986); Morgan (1990); Collis and Hussey (2009). For example, research paradigm is described as the underpinning values and rules that govern the thinking and behaviour of researchers. However, Collis and Hussey (2009, p. 46) defined research paradigm as “the process of scientific practice based on people’s philosophies and assumptions about the world and the nature of knowledge”.

Nonetheless, despite the differing views on what constitute research paradigm, what is common in all the views is that research paradigm provides a researcher with a framework for better understanding of the problem that is being investigated. The aforementioned studies attempted to develop a reliable classification of a research paradigm that can be used in social sciences. However, the Burrell and Morgan’s (1979) model is considered the most comprehensive in the world of social sciences research (Morgan, 1990 and White, 1983). Thus, the next section discusses the Burrell and Morgan’s (1979) model in detail.

2.5 The Burrell and Morgan Research Paradigms

Burrell and Morgan (1979) developed a two-by-two matrix depicting their four research paradigms. These paradigms cut across the assumptions about the nature of social science on one hand and the nature of society on the other. Table 9 below depicts the horizontal axis representing subjective-objective dimension and the vertical axis representing the regulation-radical change dimension.

<table>
<thead>
<tr>
<th>The Sociology of Radical Change</th>
<th>The Sociology of Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radical Humanist</td>
<td>Radical Structuralist</td>
</tr>
<tr>
<td>Interpretive</td>
<td>Functionalist</td>
</tr>
</tbody>
</table>

Source: Burrell and Morgan (1979, p. 22)

These paradigms are referred to as functionalist, interpretive, radical humanist, and radical structuralist. It is important to note here that the dichotomous nature of these paradigms is what makes the Burrell and Morgan’s (1979) model not only unique but also generated a lot of criticisms. These paradigms are discussed in detail below.

2.5.1 Functionalist Paradigm

This paradigm involves realist ontology, a positivist epistemology, a deterministic model of human nature, and a nomothetic methodology. Theorists belonging to the functionalist paradigm adopt methods of analysis that are normally used in the natural sciences. This is because such theorists believe that our social world is concrete and relationships within its constituents can be identified and analysed using models commonly used in the natural science.

This view has been reaffirmed by the Burrell and Morgan (1979, p. 25) that “… the social world is composed of relatively concrete artefacts and relationships which can be identified, studied and measured through approaches derived from natural sciences”. It is important to note here that, this paradigm dominates accounting and finance research (see for example Chua, 1986; Hopper and Powell, 1995; Ryan et al., 2002).

2.5.2 Interpretive Paradigm

This paradigm involves a subjectivist point of view about the society and social science. It adopts a nominalist ontology, an anti-positivist epistemology, a voluntarist model of human nature and an ideographic methodology. This paradigm provides explanation on the status quo of the society and its constituents. As Burrell and Morgan (1979, p. 28) aptly stated that this paradigm is adopted in order to “… understand the world as it is...” Hence, theorists using this paradigm are only interested in investigating and understanding their social world without any attempt to change it. In doing so, a theory is developed based on the understanding of the problem being investigated via an interaction between the researcher and the subjects of the researcher.
2.5.3 Radical Humanist Paradigm
This paradigm adopts nominalist ontology, an anti-positivist epistemology, a voluntarism model of human nature and an ideographic methodology on the one hand, and radical change, modes of domination and potentiality on the other hand. We can see that this paradigm shares the aforementioned assumptions with the interpretive paradigm based on the subjective view about the social science.

2.5.4 Radical Structuralist Paradigm
This paradigm adopts realist ontology, a positivist epistemology, a deterministic view of human nature, and a nomothetic methodology. This paradigm shares its assumptions with that of the functionalist paradigm regarding the social science. On the other hand, it concerns itself with developing a society from the radical perspective via “… radical change, emancipation, potentiality, structural conflict, modes of domination and deprivation” (Burrell and Morgan, 1979, p. 34).

2.5.5 Critique on Burrell and Morgan Model
Despite the prominence the Burrell and Morgan (1979) model gained in the world of social science research (see for example Ryan et al., 2002 and Chua, 1986), the model has generated a myriad of academic debate based on the criticisms it generated. This is because Burrell and Morgan (1979, p.67) argued that the aforementioned paradigms are alternatives to one another; that is “… one cannot operate in more than one paradigm at any given point in time since in accepting the assumptions of one, we defy the assumptions of all the others”.

Hence, such paradigms are mutually exclusive; an issue that formed the basis for the criticisms attracted by their model, despite being very important in methodological assumptions underpinning research in accounting and finance (see for example Hopper and Powell, 1985; Chua, 1986; Laughling, 1995; Ryan et al., 2002; Saunders et al., 2009).

The model has been criticised on a number of grounds by different researchers, see for example Hopper and Powell (1985); Chua (1986) and Laughlin (1995). These criticisms are discussed hereunder. In this context, Hopper and Powell (1985) argued that the Burrell and Morgan model only dealt with the subjective–objective dimension of social science, which is not the only aspect researchers consider while conducting a research.

Similarly, Chua criticised the Burrell and Morgan’s (1979) model based on the following reasons. Firstly, their use of ‘mutually exclusive’ dichotomy on their paradigms makes it impossible for a researcher to adopt two or more research paradigms at a time. Secondly, they wrongly misinterpreted Kuhn’s argument as advocating irrational paradigm choice. Thirdly their encouragement of latent relativism of truth and reason; and lastly, their model is not very clear about the difference between the ‘radical structuralist’ and ‘radical humanist’ paradigms.

Consequently, Chua developed the model of methodological assumptions in accounting and finance research which is categorised into beliefs about knowledge, beliefs about physical and social reality, and relationship between theory and practice, these assumptions are presented in Table 10 below:

<table>
<thead>
<tr>
<th>Chua’s Classification of Methodological Assumptions</th>
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<tbody>
<tr>
<td>A Beliefs About Knowledge</td>
</tr>
<tr>
<td>Epistemological</td>
</tr>
<tr>
<td>Methodological</td>
</tr>
<tr>
<td>B Beliefs About Physical and Social Reality</td>
</tr>
<tr>
<td>Ontology</td>
</tr>
<tr>
<td>Human Intention and Rationality</td>
</tr>
<tr>
<td>Social Order/Conflict</td>
</tr>
<tr>
<td>C Relationship Between Theory and Practice</td>
</tr>
</tbody>
</table>

Source: Chua (1986, p. 604)

Assumptions about knowledge are categorised into two: epistemological and methodological. Chua (1986, p 604) stated that epistemological assumptions are assumptions about decision on "… what is to count as acceptable truth by specifying the criteria and process of assessing truth claims."

On the other hand, the methodological assumptions are concerned with "… the research methods (that are) deemed appropriate for the gathering of valid evidence" to be used in a particular research. Secondly, assumptions about the physical and social reality are based on the assumption that reality exists ‘independent’ of the researcher. Lastly, assumptions about theory and practice are based on the relationship between the knowledge and the ‘truth’ about the empirical world.

Consequently, Chua’s assumptions are considered to be assumptions about the conventional accounting that are interpretive in nature and critical by substance. In a nutshell, while the Burrell and Morgan’s (1979) model argues for mutual exclusiveness amongst the four research paradigms, Chua’s (1986) model argues for
establishing and assessing the strengths and weaknesses of such ‘alternative’ assumptions in the context of conventional accounting and finance research. This is particularly important in accounting research as aptly stated by Ryan (2012) that an interesting aspect of accounting research is that it cuts across many ‘boundaries’. Hence the need for us to consider the paradigms normally used in accounting research, an issue discussed hereunder.

2.6 Paradigms used in Accounting Research

As argued by Ryan et al. (2002) that accounting research cuts across many boundaries, understanding and appropriately using the right paradigms will go a long way in developing good accounting theories. For example, Hopper and Powell (1985) in Chua (1986) viewed that accounting theories can be classified, by using the aforementioned Burrell and Morgan model, into three; that is the mainstream accounting research, the interpretive accounting research, and the critical accounting research. The Hopper and Powell’s (1985) categorisation is provided in Figure 1 below.

First of all, in the context of Burrell and Morgan’s model, the functionalist research paradigm in the Hopper and Powell’s categorisation is argued to be consistent with the mainstream accounting research (Hopper and Powell, 1985; Chua, 1986; Ryan et al., 2002). For example, adopting a particular theory to test hypotheses is in line with the positivist epistemological assumptions based on the methods commonly used in the natural sciences.

![Figure 1: Hopper and Powell’s (1985) Taxonomy of Accounting Research](source: Hopper and Powell (1985))

Secondly, the interpretive accounting research paradigm adopts a different approach to accounting research than the functionalist approach. This approach is adopted from the Burrell and Morgan’s model in order to have a good understanding of the ‘social nature of accounting’ problem under investigation based on the human behaviour that is believed to be behind the actions of human beings (Ryan et al., 2002).

Thirdly, the critical accounting research paradigm encompasses both the radical humanist and radical structuralist under the Burrell and Morgan’s (1979) model. Hence, Hopper and Powell (1985) argue that the shortcomings associated with the subjective-objective dimensions in the Burrell and Morgan’s (1979) model are adequately taken-care of. Under the critical accounting research paradigm, researchers consider acquisition of knowledge via qualitative enquiry - similar to that of the interpretive paradigm (Hannah, 2003).
In a nutshell, while in the discussion above we considered the critics of the Burrell and Morgan’s (1979) model on the possible research paradigms to be adopted by a researcher in a particular research, and the research paradigms used in accounting research, the bottom-line is adopting the most appropriate paradigm in the context of one’s research in accounting.

III. Conclusions

The discussions above focused on the different research paradigms an accounting researcher can adopt in his or her research, which was mainly based on the Burrell and Morgan’s (1979) model. Subsequently, critics of the Burrell and Morgan’s model were discussed, and finally the research paradigms used in accounting research are also discussed. Therefore, this paper states that the functionalist research paradigm which falls within the objectivist dimension and the sociology of regulation that is based on both the Burrell and Morgan’s (1979) model and the Hopper and Powell’s (1985) taxonomy are commonly used in accounting research.

References