


# Conceptualising the Philosophical Underpinning of the Study: A Practical Perspective

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## Abstract

This paper sought to develop a literature review-based framework for fitting research projects into philosophies of research. The philosophical underpinning of the study to optimize the financial performance of pension funds through asset allocation and portfolio management decisions was used as a case in point. The paper argues that all knowledge generation processes should be deeply rooted in philosophy if they are to produce reliable solutions to research problems. The study established that the research approaches and the science of doing research need to be informed by the philosophical positions of reality, knowledge, logic and ethical stance of the researcher. It is also noted that the philosophical positions of the researcher should be derived from the objective or subjective nature of the variables in the research problem. In relation to optimizing the financial performance of pension funds, the study concluded that pragmatism is the most appropriate guiding philosophy for determining the ontological, epistemological, axiological and methodological positions of the researcher. It is also concluded that the mixed method research paradigm, implemented through the explanatory sequential design is a better approach to comprehensively understand the subject matter since pension fund financial performance is a function of both subjective and objective factors.

## Keywords

Philosophical Underpinning, Ontology, Epistemology, Axiology, Research Paradigm, Methodology, Research Design

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## 1. Introduction

The search for knowledge is an inevitable and continuous activity for human

nature (Ogundare, 2017). The scientific method for generating knowledge involves a systematic process for collecting, analysing, presenting and interpreting data for the development of reliable solutions to problems (Kombo & Tromp, 2016). Ganesha & Aithal (2022) add that all claims of knowledge should be supported by philosophical paradigms and perspectives. Saunders et al. (2009) recommend that all knowledge-generating processes should be backed up by philosophical explanation and justification. Thus, all knowledge-generating activities should be anchored in philosophy if they are to be dependable and reliable. However, researchers have always grappled with ensuring that research activities are conducted in a manner that is consistent with the philosophies of research (Saunders et al., 2009). The problem of developing the philosophical underpinning of the research is even more profound among novice researchers. This study sought to develop a practical framework for fitting the research project in philosophy using a pragmatic study of optimizing pension industry financial performance through asset allocation and portfolio management in Zambia as a case in point.

Through research, investigators can increase the stock of theoretical or practical knowledge by delving into the study of materials, objects, thoughts and feelings. The investigator's view and interpretation of the problem at hand or the world around them determine the research approach adopted to find reliable solutions. The two main views of the functioning of the world are objectivism and subjectivism (Saunders et al., 2009). Each of the two views dictates how any phenomenon may be investigated and understood. Accordingly, objectivism is a view that the world or social phenomena exist and operate independently of the social actors whilst subjectivism views a world that is explained by the actions and perceptions of the actors. Each of the world views has different philosophical assumptions and calls for different research methods to produce acceptable and reliable knowledge. The methodology adopted needs to be consistent with the philosophical assumptions of ontology, epistemology and axiology that the researcher has about the world (Creswell, 2009; Saunders et al., 2009). Paulinus & David (2013) add that the philosophical assumptions guiding any particular research design must not be amorphous even though they may be contestable by nature. This means that the research design and methodology adopted for any research undertaking should logically follow the philosophical assumptions if the findings of the study are to be acceptable and relied upon.

The problem of optimizing the financial performance of pension funds is a multivariate problem as financial performance is explained by multiple variables. Empirical literature reveals that pension fund financial performance depends on investment manager characteristics (Kahneman, 2011; Tronnberg & Helin, 2018), regulatory framework (Muia, 2015), macroeconomics conditions (Hurd & Rohweder, 2010; Clemens et al., 2015), fund size (Walker & Augusto, 2010; Robu & Sandu, 2011; Bikker et al., 2012), asset allocation decisions (Ibbotson & Kaplan, 2000; Montreal, 2017) and portfolio management strategies (Mungai & Duncan, 2017). To optimize the financial performance of pension

funds through asset allocation and portfolio management, the nature and characteristics of all variables at play should be taken into consideration in the adoption of appropriate philosophical positions. Variables and relationships that are measurable, observable and confirmatory should be viewed as objective. Whilst variables that are viewed to be perceptual and highly dependent on the feelings and beliefs of social actors are deemed to be subjective. The development of a model to guide asset allocation and portfolio management should be deeply rooted and informed by appropriate philosophical underpinning if the research results are to be credible and reliable. [Snape & Spencer \(2003\)](#) share this view and emphasize the need for researchers to be concerned about the philosophical underpinning of the research to produce quality results.

This paper contributes to the demystification of the complex nature of research philosophies in the context of a research problem. The remainder of the paper is organized as follows: Section two presents the review of landmark philosophical assumptions in research, this is followed by the review of logical reasoning in research processes in section three before the review of research paradigms in section four. Section five presents the conceptual framework for fitting research problems into philosophy. The conclusion of the paper is provided in section six.

## 2. Philosophical Assumptions

[Gemma \(2018\)](#) defines research philosophy as the truth, reality and knowledge that is perceived by the researcher. [Jackson \(2013\)](#) states that philosophical assumptions that the researcher has about the research problem influence the researcher's positionality and choice of methodology. Some of the landmark philosophies in research that influence researcher assumptions include ontology, epistemology, axiology and pragmatism ([Saunders et al., 2009](#); [Bryman & Bell, 2011](#); [Jackson, 2013](#); [Paulinus & David, 2013](#); [Creswell & Clark, 2018](#)).

Ontological assumptions are concerned with the reality of social phenomena under investigation ([Saunders et al., 2009](#)). An objective view considers reality to be external to the mind of the researcher while a subjective view defines reality as created in the mind of the social actor. Depending on the worldview of social phenomena, reality can be viewed from the realist or nominalist ontology for objective and subjective perspectives, respectively. Since objective reality is assumed to be independent of the mind of social actors, it is assumed to be the same for all. Where the realist ontology holds, there should be a single reality that should be discovered by all the concerned social actors. The nominalist ontology is associated with multiple realities as created in the minds of various social actors. It is also associated with the use of flexible methods, unlike the realist ontology that would call for the use of specific methods in specific situations.

Epistemology is concerned with the nature of knowledge and how any one social actor knows that they know something ([Bryman & Bell, 2011](#)). An objective worldview is associated with positivist epistemology while the subjective view is associated with humanistic epistemology. The humanistic epistemology involves

knowledge generation from social construction and interpretation by the social actors. It is the epistemological position that is adopted by researchers with a nominalist ontological perspective. Positivist researchers view the world to have a single reality and adopt a realist position. They assume that reality is stable, observable, measurable and independent of the perceptions of the investigator (Sharan, 2009). According to positivists, knowledge is experiential so that reality can be discerned from the senses of the human body.

Axiology deals with philosophical assumptions about the nature and effect of values in knowledge generation (Creswell & Clark, 2018). It involves the understanding and control of values that can influence the knowledge-generation process. An objective phenomenon is said to have intrinsic value while the value of a subjective phenomenon depends on what is defined and attached by the social actors. Thus, an objective worldview requires a value-free research approach while a subjective worldview takes into account the values of the social actors concerned. Paulinus and David (2013) submit that the philosophical concept of axiology is important in making research choices by considering the roles that values play in a particular knowledge-generation process and the capability of researchers to make value judgments. Although axiology is mainly concerned with the values of the researcher on aesthetics and ethics, it influences the research process in terms of investigator choices of the study to undertake and the methods to use (Saunders et al., 2009). Therefore, the quality of knowledge generated is influenced by the awareness and control of values in the study through self-regulation.

Pragmatism is a philosophy that allows the research not to be restricted to a specific worldview. Paulinus and David (2013) state that this is particularly useful in cases where it is difficult to categorically associate the social phenomena under investigation with a specific worldview and associated philosophical assumptions. Saunders et al. (2009) suggest that in a pragmatic study, the selection of ontological, epistemological and axiological assumptions should be guided by the research questions under investigation. It is about what would produce results that can practically be applied to solve the problem under investigation. Pragmatism focuses on producing valuable research results without being limited by ontological, epistemological, or axiological assumptions (Creswell & Clark, 2018). Thus, pragmatism is a better philosophy to adopt for any study that seeks to provide a working solution without limitations to prior assumptions about the nature of study variables or social phenomena under investigation.

The problem of optimizing the financial performance of pension funds assumes that financial performance is explained by both subjective and objective factors. This assumption is also supported by a literature review which shows that financial performance is a function of subjective factors that include fund manager characteristics and portfolio management strategy (Lungu, 2009; Mungai & Duncan, 2017; Tronnberg & Hemlin, 2018) and objective factors such as asset allocation and fund size (Blake et al., 1999; Ibbotson & Kaplan, 2000; Bikker et

al., 2012). To have a thorough understanding of the research problem, pragmatism is a better philosophy to guide the research process. Following the recommendation by Saunders et al. (2009) and Onwuegbuzie & Leech (2005), each research question should determine the ontological, epistemological and axiological philosophical positions to be adopted. This will enable the researcher to make a pragmatic recommendation to fund managers and policymakers in the pension fund industry.

Designing a model for optimizing the financial performance of pension funds with asset allocation and portfolio management requires an understanding of existing relationships among the variables of interest. The study has to establish how asset allocation and portfolio management can be used as vehicles for optimizing the financial performance of pension funds in Zambia. Accordingly, it is assumed that the causal relationships among research variables of financial performance, asset allocation and portfolio management can be objectively determined. Thus the adoption of positivist epistemology, realist ontology and value-free axiological positions will enable the researcher to describe the study variables and determine the extent to which financial performance is caused by asset allocation and portfolio management.

A scientific explanation of how pension fund performance is caused or explained by asset allocation and portfolio management facilitates the appropriate manipulation of the explanatory variable to bring about desired results. The positivist view of epistemology better explains this as it assumes that there is always an objective explanation for every happening (Neuman, 2011). Thus, if financial performance can be explained by asset allocation and portfolio management as espoused by the literature review (Blake et al., 1999; Ibbotson & Kaplan, 2000; Muia, 2015) an identification of the objective relationship of the variables of interest would enable fund managers to influence performance by adopting the right strategic posture on the explanatory variables. It is also assumed that the portfolio management strategies that characterize pension fund management and their associated rationale can be objectively determined without the input of researcher values. Nominalist ontological and humanistic epistemological positions are more appropriate in determining how pension fund financial performance can be optimized from the perspective of fund managers and evidence from quantitative analysis.

### 3. Logic and Reasoning

Logical reasoning guides the conduct and use of research information to generate reliable solutions to problems. Evidence-based policy and decision-making require that managers and policymakers have information to make valid conclusions and develop reliable solutions to problems. Through logical reasoning, managers and policymakers can make inferences about populations based on sample information (Plutynski, 2011). According to Kombo & Tromp (2016), the collection, analysis, presentation and interpretation of data in research is

supposed to be done systematically. [Saunders et al. \(2009\)](#) add that systematic investigation entails a research process that is guided by logical reasoning. An understanding of the key philosophical assumptions facilitates for the adoption of an appropriate logic to guide the conduct of the study. [Kombo & Tromp \(2016\)](#) submit that the adoption of a suitable logic can lead to the development of dependable solutions to problems under consideration. The four most influential logics in research include deduction, induction, retroduction and abduction strategies ([Malhotra, 2017](#)). The adoption of any of the logic depends on the philosophical assumptions that the researcher has about the problem under investigation. Logical reasoning is poised as the determinant of the most appropriate paradigm to adopt and follow in investigating a research problem. Each research paradigm dictates the most appropriate methods or techniques to use to generate acceptable knowledge that is also supported by philosophy.

A deductive logic to knowledge generation begins with abstract concepts and uses theoretical arguments to confirm and explain observed relationships in the variables under study ([Neuman, 2011](#)). A deductive logic begins with a tentative and explicit hypothesis of expected empirical relationships as deduced from theoretical arguments on the subject matter. Data collection and subsequent analysis are used to test the hypothesis deduced from the theory. The deduction is premised on the knowledge that is founded by generally accepted ideas such that anything true must conform to the foundational position. [Cohen \(2015\)](#) argues that deductive logic is limited as it does not generate any new knowledge since explanations are always made in relation to generally accepted knowledge or theory only.

Inductive strategy is based on knowledge generated from facts obtained by a pure, dispassionate and neutral observation rather than being guided by theory ([Saunders et al., 2009](#)). An inductive logic begins with the observation of relationships and patterns revealed in the data available to generate conclusions that extend beyond what has been observed. Observations in an inductive strategy produce patterns that are used to form a tentative hypothesis and subsequent theory for general use. It is, therefore, good for making any predictions and forecasting of any phenomena. However, the possibility of making predictions or expectations based on limited observations and the production of false theories limits the use of the strategy. Similar to the deduction strategy, induction relies on knowledge generated from observations that are external to the investigator, therefore, the two logics can only be used when it is assumed that the functioning of the world is objective. The study of optimizing pension fund performance seeks to generate knowledge for optimizing the financial performance of pension funds based on verifiable evidence to inform policy formulation and investment decision-making. The inductive strategy is the most suitable strategy to guide the research process since it is desired that the implications of the findings are extrapolated into the future.

Abduction is a research strategy that generates knowledge from the meanings,

language and everyday accounts of social actors (Malhotra, 2017). The strategy recognizes that the behaviour and actions of social actors is explained by individual interpretation of social contexts in which they exist and that it is important to describe the social context on its own terms to understand human behaviour. Malhotra (2017) adds that abduction is the strategy used by interpretivists in their quest to understand social phenomena from the perspective of those being studied. The limitation of the strategy lies in the possibility of altering the integrity of the phenomena when moving from first order constructs of those being studied to the second order constructs of the investigator. This logic is better for understanding the behaviour of fund managers and why they do what they do to influence pension fund financial performance.

The retroduction strategy is used to discover and explain underlying mechanisms that cause observed irregularities in certain circumstances (Malhotra, 2017). The strategy seeks to find possible solutions to problems by understanding the possible causes of irregularities. It involves working in retrospect from data or observations to possible explanations and remedies. In finding solutions, the logic also requires the researcher to be open-minded and sometimes borrow concepts and solutions applicable to other fields. This logic is relevant in designing a financial optimizing strategy that could borrow working solutions from related problems. This strategy allows for flexibility to look beyond the study findings for a solution but borrow working solutions from any other field.

#### 4. Research Paradigms

The qualitative and quantitative research paradigms dominate research processes. Scotland (2012) submits that every adopted paradigm should be based on the assumptions that the researcher makes about the ontological, epistemological and axiological positions of the problem under investigation. The objective worldview is mainly associated with a quantitative approach to research while the subjective view follows a qualitative approach (Bryman & Belly, 2011). Kombo & Tromp (2016) provide that the quantitative paradigm focuses on the quantification or measurement of research variables and that it is useful for establishing the cause and effect relationships. It is based on empiricism and rationalism where only that which is observable and verifiable can be studied. The quantitative approach takes the stance of a natural scientist where knowledge acquisition depends on observable, measurable and verifiable data and facts (Mumba & Alici, 2021). Knowledge generation depends on what has been observed independent of the researcher's values, feelings, or perceptions. It is therefore associated with deductive and inductive logic in which the realist ontology, positivist epistemology and value-free research approach is adopted.

A qualitative approach seeks to analyse and describe social phenomena from the perspective of those being studied (Kombo & Tromp, 2016). Idealism directs the conduct of the study so that the values, feelings and perceptions of research participants take centre stage in the research process. Idealism recognizes the

power of the human intellect and argues that the external world is not independent of the human mind but a manifestation of its conceptualization (May & William, 1996). The two main variants of idealism are interpretivism and constructivism. Saunders et al. (2009) argue that interpretivism is derived from phenomenology and symbolic interactionism where human behaviour is a product of human interpretation of the world around them and the need to continuously adjust in a dynamic environment. To appropriately understand human behaviour, researchers are supposed to be empathetic and look at things from the perspective of those being studied. Constructivism is concerned with knowledge generation from social constructs of reality through the cognitive process (Bryman & Belly, 2011). Rather than having mere interpretations, constructivism posits that social actors also construct their own meanings of the world around them. It relies on a flexible and interactive research strategy of abduction which takes into account the feelings, values and perceptions of the social actors. This approach is associated with nominalist ontology, humanistic epistemology and voluntarist human nature philosophical assumptions of social phenomena.

A hybrid research paradigm or mixed-method research approach combines qualitative and quantitative research approaches in a single study. The approach complements the two dominant research paradigms and minimizes their limitations while maximizing their advantages (Creswell & Clark, 2018). This approach is consistent with the pragmatism research strategy which is not restricted to the priori conditions but applies whatever is applicable (Tashakkori & Teddlie, 2008; Saunders et al., 2009). Johnson et al. (2007) argue that a mixed-method approach increases the breadth and depth of understanding of social phenomena through the complementary use of both the qualitative and quantitative methods. An investigator has leeway to investigate a particular research problem from both subjective and objective perspectives and provide a more practical and holistic solution (Mumba & Alici, 2021). Whitehead and Schneider (2013) add that a mixed method approach is better than a singular quantitative or qualitative based study as it provides an opportunity to produce more meaningful and complete results through the use of multiple research tools and techniques.

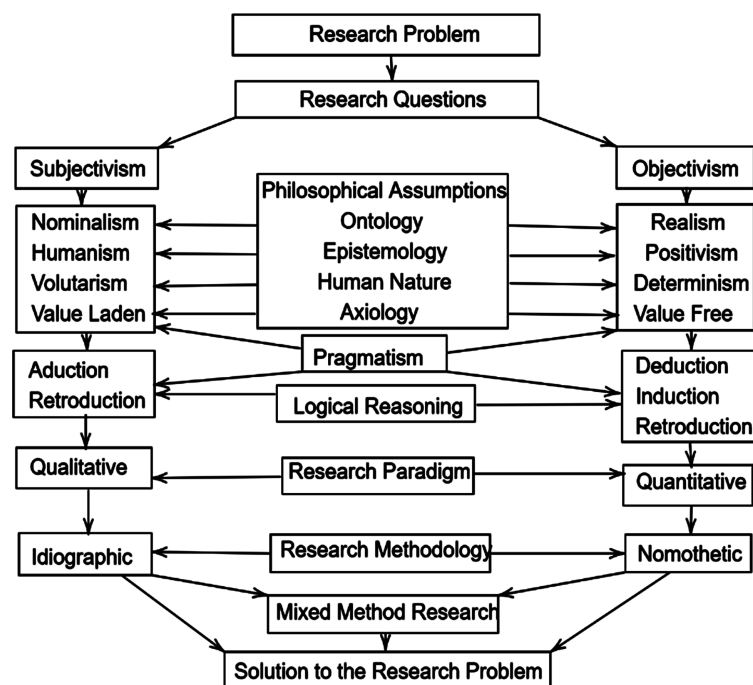
In line with the assertion by Maxcy (2003), it is difficult for pragmatic researchers to produce working solutions with only one research approach. A mixed-method approach is more appropriate for optimizing the financial performance of pension funds. This approach will allow the researcher to collect, analyse, interpret and make integrated inferences using both quantitative and qualitative research tools in the same study (Whitehead & Schneider, 2013). The researcher will be able to investigate each research question with the most appropriate tools without being restricted to a specific perspective on the research problem. The adoption of each paradigm will depend on the most appropriate logic as dictated by the philosophical assumptions for each research question. In agreement with the conclusion by Kombo & Tromp (2016), the qualitative re-



search approach will enable the researcher to describe and analyse the behaviour of fund managers in optimizing financial performance while the quantitative component will facilitate for the confirmation of any verifiable evidence of asset allocation and portfolio management to influence financial performance. Thus, with this approach, the researcher will be able to generate reliable knowledge for designing a robust financial performance-optimizing model for pension funds in Zambia.

## 5. Conceptual Framework

**Figure 1** depicts the schematic conceptualisation of fitting the research problem in the research philosophies to generate reliable solutions. The literature shows that the starting point of developing the philosophical underpinning of the study is to have a clearly defined research problem and associated research questions. The nature and characteristics of the variables in the research problem determine the researcher's view of the research phenomena in terms of objectivism and subjectivism. The philosophical assumptions of ontology, epistemology, axiology and logical reasoning are dependent on the subjectivity and objectivity of the variables in the research problem. The review also shows that the adoption of the research paradigm and the research methodology is informed by the philosophical assumptions of the researcher and the presumed functioning of the world. The quantitative research paradigm and nomothetic methodology are associated with the objective view while the qualitative research paradigm and idiographic methodology are associated with the subjective view of the research phenomena. In cases where the research problems have a combination of either



**Figure 1.** Conceptual framework. Source: Authors, 2023.

subjective and objective variables or factors exhibiting both characteristics, a combination of research paradigms and methodologies can be applied to systematically solve the research problem. The quality of the solution developed from the research process depends on the extent to which the researcher is able to fit the research problem into the philosophies of research.

## 6. Conclusion

The knowledge generation process should be anchored in philosophies of research to produce acceptable and reliable solutions to problems under investigation. Therefore, the research approach and the science of doing research need to be informed by the philosophical positions of reality, knowledge, logic and ethical stance of the researcher. These philosophical positions should also be consistent with the assumptions that the researcher has about the functioning of the variables in the research problem. It is concluded that pragmatism is the most appropriate philosophy to guide the research process for optimizing the financial performance of pension funds in Zambia because financial performance is explained by both subjective and objective factors. This philosophy is suitable for developing a pragmatic model for optimizing financial performance without being restricted to a particular view of world functioning. The study of objective factors and associated relationships should be guided by the logic of induction for the researcher to make conclusions extending beyond the period being studied. Inferences on objective factors should be made on realist ontological, positivist epistemology and value-free axiological positions. The researcher will be able to objectively determine the empirical relationships as hypothesized by theoretical arguments and evaluate the implications for financial performance optimization strategies. The logic of pragmatism should guide the inferences that will be formed on subjective factors in the study. Nominalist ontology, humanistic epistemology and value-laden philosophical approaches should be adopted to sufficiently understand the influence of subjective factors on pension fund financial performance. From the foregoing, a mixed-method research approach should be adopted to complement the two dominant research paradigms of quantitative and qualitative approaches. An explanatory sequential research design should be used as a blueprint for undertaking the research process.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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