

The Philosophical Underpinning for Optimizing Pension Fund Financial Performance Thorough Asset Allocation and Portfolio Management Strategies

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ABSTRACT: *This paper discusses a literature review perspective of the philosophical underpinning for optimizing the financial performance of pension funds through asset allocation and portfolio management strategies in Zambia. A clearly defined philosophical underpinning facilitates for the generation of reliable and credible solutions to problems that is consistent with acceptable assumptions of reality, truth and knowledge. A viable pension fund industry is essential for the smooth operation of financial markets and economic efficiency. The adoption of effective investment strategies that are able to create value on member contributions guarantee meaningful benefits and decent quality of life in decumulation phase of retirees. The development of a philosophically engraved model that can be used to optimize the financial performance of pension funds is important if such institutions are to remain relevant in economies of nations. This paper concludes that pragmatism is the most appropriate guiding philosophy for investigating the subject at hand and developing a pragmatic model for optimizing the financial performance of pension funds. This entails that each research question under investigation should be used as a basis for the ontological, epistemological, axiological and methodological philosophical positions of the researcher. The mixed method research paradigm is a better approach to comprehensively understand the subject matter and make valid recommendations. In order to develop a pragmatic model that will optimize the financial performance of pension funds, the hybrid research approach ought to be implemented through the explanatory sequential design where the quantitative approach is used to inform the qualitative paradigm.*

KEY WORDS: research paradigm, ontology, epistemology, axiology, methodology.

INTRODUCTION

The pension fund industry enables the efficient operation of financial systems through the acquisition and allocation of funds to appropriate investment options. The industry controls a significant proportion of global financial assets (Tonks, 2006; Levy & Post, 2005). Gondwe & Adam (2014) state that the Pension fund industry in Zambia is just second to the banking sector in providing long term capital financial intermediation for entrepreneurs and firms with viable investment opportunities. Thus, the importance of the industry for the smooth running of financial markets and subsequently the economies of nations cannot

be overemphasized. Furthermore, a well-functioning pension fund industry is security to both the current and prospective pensioners as they are guaranteed of meaningful benefits. Effective retirement planning also depends on a viable pension fund industry that is able to adequately grow member contributions. Asset allocation and portfolio management decisions are a critical determinant of a profitable, sustainable and growing pension fund system that is able to provide meaningful benefits to members (Donald et al, 2018; Ibbotson and Kaplan, 2000; Biker et al, 2010), especially in a defined contribution (DC) pension fund systems. This paper discusses a literature review perspective of the philosophical underpinning for designing an evidence based model for optimizing the financial performance of pension funds through asset allocation and portfolio management strategies in Zambia.

When successfully developed, a model that optimizes the financial performance of pension funds enhances the contribution effect of such institutions to economic welfare and wealth maximization of ultimate investors through enriched decision making ability of fund managers and policy makers. In defined contribution pension funds, the benefits available to the members solely depend on fund performance over the investment period (OECD, 2006). With a reliable model, fund managers and policy makers are able to make informed decisions and develop strategies that will enable pension funds to sufficiently grow member contributions and provide meaningful benefits. The effectiveness of the model developed depends on the quality of the research process that produces it. Hence, the need to ensure that such a process is deeply rooted and informed by appropriate philosophical underpinning if the results are to be credible and reliable. Snape & Spencer (2003) emphasize that the researcher should be concerned about the philosophical underpinning to produce quality research.

The scientific method for generating knowledge to inform decision making and managerial actions requires a systematic research process. This process involves developing reliable solutions to problems through the systematic collection, analysis, presentation and interpretation of data (Kombo & Tromp, 2016). Through research, investigators are able to increase the stock of theoretical or practical knowledge by delving into the study of materials, objects, thoughts and feelings. Saunders, *et al.*, (2009) recommend that all knowledge generating processes should be backed up by philosophical explanation and justification. The research methodology adopted should also be consistent with 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.

The conduct of research depends on how the investigator views and interprets the world around them. 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 phenomena may be investigated and understood. Accordingly, objectivism is a view that the world or social phenomena exists and operates independent 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 problem of optimizing the financial performance of pension funds is a multivariate problem as financial performance depends on multiple variables. Empirical literature reveals that pension fund financial performance depends on investment manager characteristics (Kahneman, 2011; Tronnberg & Helin, 2018), regulatory framework (Muia, 2015; Mwendamena, 2006), macroeconomics conditions (Hurd & Rohweder, 2010; Clemens, *et al.*, 2015), fund size (Walker & Augusto, 2010; Robu & Sandu, 2011; Bikker *et al*, 2012), asset allocation (Ibbotson and Kaplan, 2000; Montreal, 2017) and portfolio management strategies (Mungai and Duncan, 2017). To develop a model for optimizing the financial performance of pension

funds, the nature and characteristics of variables at play is critical 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 others are deemed to be subjective.

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 influences researcher 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 and David, 2013; Creswell & Clark, 2018).

Ontological assumptions are concerned with the reality of social phenomena under investigations (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 world view of social phenomena, reality can be considered to be realist or nominalist ontology for objective and subjective views, respectively. Since objective reality is assumed to be independent of the mind of social actors, it is assumed to be the same to 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 reality 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 world view 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 nominalist ontological perspective. Positivist researchers view the world to have 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 the 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 world view requires a value free research approach while a subjective world view 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 researches to make value judgements. 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 world view. Paulinus and David (2013) state that this is particularly useful in cases where it is difficult to categorically associate the social phenomena under investigation to a specific world view 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 financial performance of pension funds assumes that financial performance is explained by both subjective and objective factors. This assumption is also supported by 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 thorough understanding of the problem at hand, pragmatism will be adopted as a guiding philosophy in the conduct of the study. In accordance with the recommendation by Saunders et al. (2009) and Onwuegbuzie & Leech, (2005), each research question will be used as a determinant of ontological, epistemological and axiological philosophical positions to be adopted. This will enable the researcher to make pragmatic recommendation to fund managers and policy makers 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 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 an 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 for the appropriate manipulation of 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 to every happening (Neuman, 2011). Thus, if financial performance can be explained by asset allocation and portfolio management as espoused by literature review (Blake et al, 1999; Ibbotson and 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. A nominalist ontological and humanistic epistemological positions will be used to determine how pension fund managers can optimize pension fund financial performance using objective evidence from quantitative analysis and management experience and knowledge of the industry. The researcher assumes that this can be best determined by practicing managers using their industry experience, hence adopting a subjective view of the world functioning.

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 requires that managers and policy makers have information to make valid conclusions and develop reliable solutions to problems. Through logical reasoning, managers and policy makers are able to 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 an 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 logics depend on the philosophical assumptions that the researcher has about the problem under investigation. The logics are poised as determinants 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 in order 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 is used to test the hypothesis deduced from theory. Deduction is premised on knowledge that is founded by generally accepted ideas such that anything that is true must be consistent with the foundational position. Cohen (2015) argues that the 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 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 beyond the study period that will be considered. A modified induction strategy which is informed by the conceptual framework will be adopted.

Abduction is a research strategy that generates knowledge from the meanings, language and everyday accounts of social actors (Molhotra, 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. Molhatra (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 will be prominent in understanding the behaviour of fund managers and why they do what they do to influence pension fund financial performance.

Retroduction strategy is used to discover and explain underlying mechanisms that cause observed irregularities in certain circumstances (Molhatra, 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 explanation and remedies. In finding solutions, the logic also requires the researcher to be open minded and sometimes borrow concepts and solutions applicable in other fields. This logic will be 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.

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 investigations. The objective world view is mainly associated with 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. Quantitative approach takes the stance of a natural scientist where knowledge acquisition depends on observable, measureable and verifiable data and facts. Knowledge generation depends on what has been observed independent of the researcher values, feelings or perceptions. It is therefore associated with deductive and inductive logics 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 and 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 perception 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 of mixed method research approach combines qualitative and quantitative research approaches in a single study. The approach complements the two dominant research paradigms of qualitative and quantitative research approaches and minimizes their limitations while maximizing their advantages (Creswell & Clark, 2018). This approach is consistent with 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 the subjective and objective perspectives and provide a more practical and holistic solution. 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 enables the researcher to sufficiently understand investment decision making and resultant financial performance of pension funds in Zambia. 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 research 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. To implement the mixed study approach, a sequential paradigm where quantitative approach is used to inform the qualitative approach will be adopted (Creswell *et al.*, 2011). Phillip, *et al.*, (2017) support this approach and argue that sequential explanatory paradigm provides more insights and understanding on the research problem more than the use of a single approach. 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.

CONCLUSION

The knowledge generation process should be anchored in philosophies of research to produce acceptable and reliable solutions to problems under investigation. Therefore, the science of doing research need to be informed by philosophical assumptions of reality, knowledge, logic and ethical positions of the researcher. Pragmatism philosophical assumption should 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 more appropriate 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 will 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 will guide the inferences that will be formed on subjective factors in the study. Nominalist ontology,

humanistic epistemology and value laden philosophical approaches will be espoused to sufficiently understand the influence of subjective factors on pension fund financial performance. From the forgoing, a mixed method research approach will be adopted to compliment the two dominant research paradigms of quantitative and qualitative approach. An explanatory sequential research design will be used as a blueprint for undertaking the research process.

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