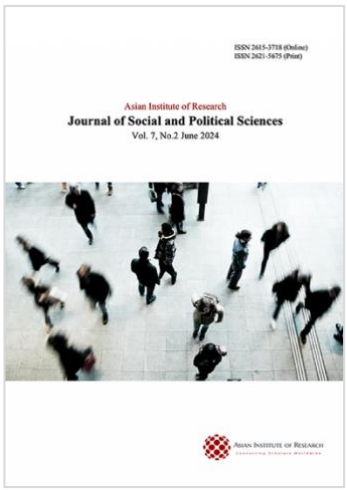

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What Influences Pension Funds' Investment Decisions in Tanzania?

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Abstract
This paper aimed at examining the influence of political interference, investment guidelines and investment ethical guidelines on pensions investment decision in Tanzania. The structural equation modelling was employed to analyse primary data collected using five-point Likert scale structured questionnaires with closed-ended questions. The study reveals that political interference has a negative influence on investment decisions, indicating that increased political interference leads to a decrease in the quality of investment decisions. To ensure quality investment decisions, governance mechanisms should be strengthened, promoting independence and insulating investment managers from undue political pressures. The negative influence of political interference on investment decisions highlights the need for establishment of robust governance mechanisms to safeguard against undue political pressures. Conversely, investment guidelines demonstrate a positive influence, where following guidelines directives enhance investment decisions. This underscore the importance of well-defined and comprehensive investment guidelines that provide clear directions, criteria and restrictions. By establishing a framework for decision-making, investment guidelines can enhance the quality of investment decisions within pension funds. However, the study found no significant influence of ethical guidelines on investment decisions, suggesting that ethical guidelines do not play a significant role in shaping the investment decisions of pension funds in Tanzania. This finding raises questions about the effectiveness of ethical guidelines in ensuring quality pensions funds investment decisions. While ethical guidelines may not directly shape investment decisions, it is important for the funds to recognize the broader societal and reputational implications of their investment practices. Funds should consider incorporating ethical considerations into their investment frameworks.

Keywords: Investment Decision, Political Interference, Investment Guidelines, Ethical Guidelines

1. Introduction

Pension funds play a crucial role in providing financial protection to individuals throughout their lives, particularly in times of need such as retirement, disability or unemployment (OECD, 2019). The funds serve as a safety net, ensuring that people maintain a minimum standard of living and help reduce poverty rates (World Bank, 2020). By pooling resources and spreading risks across society, pension funds promote social cohesion and contribute to overall economic stability (ILO, 2017). Furthermore, these funds can stimulate economic growth by encouraging consumer spending, as beneficiaries are more likely to spend their benefits on goods and services (IMF, 2018). Pension funds can also enhance labor market efficiency by providing workers with the financial security necessary

to invest in education and training, promoting higher productivity and better employment opportunities (Barr, 2018). Additionally, pension fund systems contribute to gender equality, as they often include provisions that help to address the unique challenges facing women in the labour market, such as the gender pay gap and caregiving responsibilities (UN Women, 2015). By offering a stable source of income, pension funds not only improve the well-being of individuals and families but also contribute to the sustainable development of societies at large (United Nations, 2015).

One of the most important factors that determine the pension funds' performance is the viability of investment decisions. Investment decisions significantly impact the performance and sustainability of pension funds, as they determine the funds' ability to generate sufficient returns to meet their financial obligations to members (OECD, 2019). By making sound investment choices, funds can optimize returns, reduce risks and enhance long-term financial stability (World Bank, 2020). In addition, well-managed investments contribute to the credibility and trustworthiness of pension funds, reassuring members and policymakers of their reliability (Ambachtsheer, 2019). Furthermore, adhering to the principles of responsible investing can help funds align with investment strategies with broader social and environmental objectives, promoting sustainable economic growth and contributing to the United Nations' Sustainable Development Goals (UNPRI, 2021). Investment decisions also influence the funds' ability to adapt to changing economic conditions, demographic shifts and evolve policy landscapes (Antolin, 2018). By diversifying their portfolios and proactively managing risks, pension funds can enhance resilience to economic shocks and ensure long-term sustainability (Turner & Hughes, 2018). Moreover, sound investment decisions can help pension funds to attract and retain members, while positively influencing public opinion and political support for the funds (Casey, 2020). Ultimately, prudent investment decision-making is critical to the ongoing success and sustainability of pension funds, safeguarding the financial well-being of current and future generations (OECD, 2021).

Recognizing the significance of investment decisions for the long-term sustainability of pension funds, numerous countries have undertaken comprehensive reforms to enhance the performance and resilience of their pension systems (OECD, 2019). These reforms encompass a range of measures, including the strengthening of governance structures, the implementation of robust risk management frameworks, and the promotion of diversification strategies in investment portfolios to achieve more sustainable and optimal returns (World Bank, 2020). Moreover, countries are increasingly integrating environmental, social and governance (ESG) considerations into their investment strategies, aligning them with the United Nations' Sustainable Development Goals, in order to ensure the longevity and responsible nature of their investments (UNPRI, 2021). While these reforms have led to significant expansions in the coverage and operations of pension funds in developing countries, the long-term sustainability of these funds remains an ongoing concern, primarily due to the impact of investment decisions influenced by a multitude of factors.

Pension assets in developing countries, particularly in sub-Saharan Africa (SSA), are relatively low compared to those in developed nations, constituting around an average of 20% of GDP in the last 5 years, as opposed to 92% ratio observed in OECD countries (United Nations, 2021). However, the distribution of pension assets varies significantly both within and across regions. In SSA, countries such as South Africa exhibit a higher concentration of retirement savings, with pension assets accounting for over 90% of GDP based on recent data. Namibia follows closely with a proportion of over 70%, while Botswana and Kenya have ratios of over 42% and between 12% and 14%, respectively. Nigeria, despite having a substantial value of assets in retirement savings plans, records a smaller proportion of total assets to GDP, with the highest ratio of 8% observed in 2020.

Pension assets in sub-Saharan African (SSA) countries are relatively small, and their allocation tends to favor equities, particularly in Southern African countries such as Botswana, Eswatini, Namibia and South Africa (RisCura, 2020). In contrast, countries like Nigeria and those in East Africa have a significant allocation towards fixed-income assets, primarily government bonds, driven by local regulations and limited alternative investment opportunities (AfDB, 2018; Juvonen *et al.,* 2019; RisCura, 2020). Various factors influence the asset allocation decisions of pension funds, including market trends, investment strategies, regulatory frameworks, governance structures, risk appetite, tax considerations and the availability of domestic assets (Juvonen *et al.,* 2019). The type of retirement scheme also plays a role, as asset allocation for defined benefit (DB) pension funds; for instance, it

may depend on factors such as scheme maturity, funding ratio and time trends (Zhao & Sutcliffe, 2021). The basis of asset allocation reflects factors such as familiarity with different asset classes, the development of local capital markets, and the range of investment opportunities available (RisCura, 2020). Some countries in the region have diversified their investments into various asset classes, including private equity, thereby expanding the alternative investment opportunities (RisCura, 2020).

In sub-Saharan Africa (SSA), pension funds are observed to predominantly allocate their investments towards short-term assets such as short-term and saving deposits, rather than pursuing long-term investment opportunities (AfDB, 2021). This creates a mismatch between the funds' investment strategies and the long-term nature of the savings they hold, potentially hindering the potential for higher returns. This phenomenon of relatively low nominal investment returns on retirement savings plans in selected countries further compounds the issue by resulting into even lower real returns. The implications of these low return levels are particularly significant for contributory pension schemes, where pension incomes are directly influenced by both contributions made and interest earned over time. While regulations often prescribe guidelines for the distribution of pension schemes' asset holdings to safeguard retirement savings from risky investments, the challenge lies in finding a diverse range of attractive assets for investment that align with long-term goals (Gruneald, 2021).

Recently, Tanzania has made significant progress in political, economic and social space, and notable developments in various sectors have been notable, leading to improved living conditions and well-being (World Bank, 2021). Until February 2018, Tanzania had five government-sponsored pension funds, which were established through legislative acts passed by the Parliament. However, in February 2018, a significant transformation took place with the enactment of the Public Service Social Security Fund Act. This legislation paved the way for the consolidation of four pension funds into a unified scheme known as the Public Service Social Security Fund (PSSSF) (URT, 2018). The creation of PSSSF aimed at streamlining and enhancing the provision of pension funds benefits specifically for employees in the public service sector.

Despite the ongoing reforms and efforts undertaken by pension funds, the Tanzanian pension fund industry is experiencing some challenges. Over the past two decades, a significant portion (more than 18%) of pension fund investments in Tanzania has been allocated to real estate, which is relatively higher compared to international standards (Kailua & Kongela, 2020). The National Audit Office (2023) identified various challenges facing funds including a decline in investment returns, the presence of abandoned or incomplete projects, and non-operational investments. Furthermore, Lotto and Isaka (2020) have highlighted the substantial growth in actual pension expenditure in Tanzania, with projections indicating that pension expenditure exceeded members' contributions in 2020 and is expected to continue growing in the coming years. By 2025, pension expenditure is projected to surpass both contribution income and investment income, putting strain on the pension system. Their findings also suggest that pension system assets began to deplete in 2020, and this trend is expected to worsen by 2030 when the total pension debt is projected to surpass the level of pension assets. Contrary to studies by Chande (2016) and Mpinga &Westerman (2017) who focused on pension schemes before reform, this study will be conducted to provide current state of investment decisions at the forefront after reforms. Therefore, given the importance of pension funds in the economy, the importance of investment decision of pensions funds on their sustainability, this study was conducted to examine factors influencing investment decisions of pension funds in Tanzania.

2. Related Literature

2.1 Theoretical Underpinning

2.1.1. Agency Theory

Agency theory was originally developed by Jensen and Meckling in the late 1970s as a framework for understanding the relationship between principals and agents and how conflicts of interest can arise between them (Jensen & Meckling, 1976). The theory assumes that agents act in their self-interest, and principals cannot observe their actions perfectly. Additionally, agents typically have more information than principals, which can lead to a principal-agent problem where the agents' interests may diverge from the principals' interests (Eisenhardt, 1989).

In the context of public pension funds, the theory suggests that investment decisions made by agents are influenced by various factors such as skills, political interference, and ethical considerations (Aluchna & Aluchna, 2019; Samaha, 2020). For instance, if employees lack the necessary investment knowledge, they may make suboptimal decisions (Berger & Hann, 2013). Similarly, if there is political interference, agents may be incentivized to make decisions that align with political goals rather than the fund's objectives (Jung & Kwon, 2017). Finally, ethical factors such as social responsibility may also influence investment decisions (Liu *et al.*, 2021).

Agency Theory has been widely applied in various fields, including finance, economics and management. In finance, it is used to understand the relationship between shareholders and management (Fama & Jensen, 1983). In economics, it is used to understand the relationship between employers and employees (Holmstrom, 1979). In management, it is used to understand the relationship between owners and managers (Eisenhardt, 1989). In the context of public pension funds, Agency Theory provides a framework for understanding factors that influence the investment decision-making process and the importance of aligning the interests of the agents with those of the principals. The agency theory suffers some criticisms that it oversimplifies the relationship between principals and agents and assumes that agents act purely in their self-interest (Milgrom & Roberts, 1992). Additionally, some argue that Agency Theory focuses too much on the conflicts of interest between principals and agents and does not consider benefits of the agency relationship (Eisenhardt, 1989).

However, despite these criticisms, agency theory remains relevant in understanding the relationship between principals and agents and how conflicts of interest can arise. It highlights the importance of aligning the interests of the agents with those of the principals and implementing appropriate governance mechanisms to ensure that the interests of the principals are protected (Eisenhardt, 1989; Gupta *et al.*, 2020). In the context of public pension funds, agency theory provides a framework for understanding the factors that influence the investment decision-making process and the importance of aligning the interests of the agents (employees) with those of the principals (members).

2.1.2. Resource-Based View (RBV) Theory

Resource-Based View (RBV) Theory was developed by several scholars in the late 1980s and early 1990s. It was originally proposed by Birger Wernerfelt (1984) and later developed and refined by Jay B. Barney (1991) and other scholars. The theory was initially developed as a strategic management framework that focused on the internal resources of an organization as the primary source of competitive advantage.

The RBV theory holds that resources must be valuable, rare, inimitable, and non-substitutable (VRIN) to create a sustainable competitive advantage (Barney, 1991). In the context of pension funds' investment decisions, employee skills, ethical issues, and political interventions can be considered as independent variables that influence the dependent variable and investment performance. Pension funds rely on their human capital, including skilled investment professionals, to make informed investment decisions. These individuals' expertise in asset allocation, risk management, and portfolio construction significantly impact the fund's performance (Barney, 1991). The RBV theory suggests that pension funds with highly skilled employees will have a competitive advantage, leading to better investment outcomes.

Ethical considerations such as environmental, social and governance (ESG) factors, can influence pension funds' investment decisions. According to the RBV Theory, pension funds that effectively incorporate ESG factors into their investment decision-making process may have a competitive advantage over those that do not, as they can align their investments with the values and preferences of their members and contribute to a more sustainable future (Hart, 1995).

Political interventions such as regulations, tax policies and government incentives can have both positive and negative impacts on pension funds' investment decisions. On one hand, political interventions might constrain investment choices or force pension funds to prioritize politically desirable investments over those with better financial returns, potentially leading to poor investment decisions (Clark & Monk, 2012). On the other hand,

political interventions might encourage pension funds to invest in sectors or projects that have long-term benefits or align with societal goals, such as infrastructure development or renewable energy (Dixon, 2008).

The RBV theory has been applied in various contexts, including corporate strategy, human resource management and marketing, among others. Its importance lies in its ability to provide a framework for understanding how organizations can leverage their internal resources to achieve a competitive advantage. However, the RBV theory has its limitations and has faced several criticisms. One major criticism is its static nature, as it does not account for the dynamic and ever-changing business environment (Priem & Butler, 2001). Additionally, the theory has been criticized for being too vague in defining the concept of resources and the conditions that make them sources of competitive advantage (Armstrong & Shimizu, 2007).

Despite these criticisms, the RBV theory remains relevant and useful in understanding the role of internal resources in shaping investment decisions of pension funds. By considering employee skills, ethical issues, and political interventions, pension funds can better understand the interplay between these factors and develop strategies to optimize their investment performance.

2.2 Empirical Literature

Pension funds are responsible for managing the retirement savings of millions of individuals, and their investment decisions can have a significant impact on the financial well-being of these individuals. The investment decisions made by pension funds play a crucial role in determining their long-term sustainable capacity to finance pension claims by members. Investment decisions made by pension funds have been a widely discussed topic in empirical studies. Notably, Schäublin (2022) conducted a notable investigation into the interplay among technical discount rates, asset allocation and funding ratios within Swiss occupational pension funds, and found that pension funds with weaker funding levels tended to employ higher discount rates when evaluating their future pension liabilities. This observation raises concerns regarding the potential presence of euphemistic discounting practices. Additionally, these underfunded pension funds exhibited a reduced inclination to invest in equities.

Akomea-Frimpong *et al* (2022) conducted a study examining the relationship between corporate governance practices and the performance of pension funds in Ghana, and revealed that corporate governance practices played a significant role in influencing the performance of pension funds.

Mwakisisile (2018) conducted a study on Asset Liability Management (ALM) for Pension Funds in Tanzania, and revealed that the pension fund would face sustainability challenges in the long run due to the increased life expectancy of its members, and that in order to enhance the long-term sustainability of the Tanzania pension fund system, reforms were necessary in several areas such as contribution rate, investment guidelines, and the formulation of target levels (funding ratios) to assess the solvency situation . The study insisted that implementing such reforms would contribute to improving the overall sustainability of the pension system in Tanzania.

Bregnard and Salva (2019) conducted a study investigating the relationship between pension fund board governance and asset allocation in Switzerland, and revealed several interesting associations. Firstly, well-governed pension fund boards were found to be linked with greater international diversification, lower cash holdings, and higher investments in risky assets, particularly for small pension funds. This suggests that effective governance practices play a role in shaping asset allocation decisions. Furthermore, the study highlighted that comprehensive investment policies established by pension fund boards had a positive correlation with investments in equities, foreign assets, and lower cash holdings.

Mpinga and Westerman (2017) conducted a literature review to develop a comprehensive framework for studying the governance of pension funds, encompassing both the macro (regulatory) and micro (board of trustees) levels. The study emphasized the pivotal role played by the board of trustees in pension fund governance, and observed that the pension fund structure and mechanisms in Tanzania adhere to high standards.

Chansuchai *et al.* (2022) conducted a comprehensive study aimed at examining the factors that contribute to the sustainability of the Government Pension Fund (GPF) in Thailand, and the results indicated that high levels of good governance, management policy and management achievement significantly influenced the GPF's sustainability.

Andonov *et al.* (2018) investigated the impact of political representativeness on the investment/financial decision-making of public organizations, particularly in public pension funds of the United States of America, and found that pension funds governed by boards heavily populated by appointed and state-ex officio commonly invest in private equity (PE) that delivers lower net internal rate of return.

In their panel study, Zhao and Sutcliffe (2021) focused on examining the factors that influence equity allocation in UK pension funds, and reported that scheme maturity, funding ratio, and time trend had the most significant impact on the allocation of assets, particularly equity allocation.

Chepkoech *et al* (2017) conducted a study to examine the factors influencing investment decisions of pension schemes in Kenya, and the findings indicated that the risk-return tradeoff had a significant influence on the investment decisions of pension schemes in Kenya, and that fund managers carefully balance the level of risk associated with investments to ensure optimal returns, while macroeconomic factors such as interest rates, performance of capital markets, and the rate of national economic growth playing a crucial role in shaping the investment decisions of pension schemes.

Wanjohi and Kariuki (2019) conducted a study in Kenya aiming at providing valuable insights to the government and stakeholders in the pension sector regarding the screening and adoption of appropriate investment policies and strategies to effectively enhance the wealth of pensioners. The findings revealed that asset allocation played a significant role in determining the fund performance of occupational pension schemes, and factors such as asset class timing, choice of investment manager, and security selection were identified as having an impact on scheme performance.

Bradley *et al.* (2016) conducted a study examining the factors contributing to local bias in state pension funds in the United States from a political perspective, and the results showed that the pension funds exhibited a 26% overweight allocation to local firms compared to the overall market portfolio, indicating the presence of local bias, which aligns with findings from previous studies. Moreover, the study estimated that state pension funds displayed a 23% overweight allocation to local firms that engaged in political contributions to local (state) politicians. Additionally, the funds exhibited a 17% overweight allocation to firms with significant lobbying expenditures, and generally such findings suggest that politics can have a significant impact on the investment decisions and performance of state pension funds.

Olulu-Briggs (2023) conducted a study to examine the impact of pension asset investments on the Nigerian economy, and results revealed that changes in government bond securities had a significant influence on changes in real estate securities. Additionally, changes in money market investments were found to have an impact on changes in government bond securities, and that when a shock occurred within the system, the responses tended to be more negative than positive.

Fadhil (2019) conducted a study to examine the factors influencing real estate investment decisions in the Zanzibar Pension funds, and the findings indicated the presence of a statistically significant long-term equilibrium relationship between real estate investment decisions and factors such as member contributions, return on investment and investment in government securities.

3. Approach and Data

3.1 Data

In this study primary data was collected using five-point Likert scale structured questionnaires with closed-ended questions. The questionnaire was developed in accordance with the study's objectives and was guided by literature review. To ensure content validity of a questionnaire we used a comprehensive literature review to determine the relevant constructs and variables to be measured as recommended by De Vellis (2017) [Refer to table 1]. Expert review was also conducted to ensure that the questionnaire items were relevant and comprehensive, and that the constructs being measured were valid as recommended by Wilson and Pan (2016). Also, the study conducted a pilot testing in ensuring content validity, which involved administering 15 questionnaires to a small sample of respondents and analyzing the results to identify any potential problems or issues with the questionnaire design or whether respondents had the same understanding of the question as recommended by Polit and Beck (2021). Pilot testing helped to identify ambiguous or confusing items, and ensured that the questionnaire was acceptable and understandable.

3.2 Variables and Measurements

The dependent variable of the study was investment decisions while independent variables were political interferences, investment guideline and ethical guidelines as shown in Table 1 below

Table 1: Variables and Measurements

S/N	Variable	Measurement	References
1.	Investment Decisions	✓ Long-term financial sustainability and beneficiary obligations ✓ Investment strategy aligned with risk tolerance for stable returns ✓ Analysis of market conditions, economic trends, and risk management in decisions, independent oversight, governance, transparency, and accountability.	Andonov *et al*. (2018)
2.	Political Interferences	✓ Alignment of investments with political priorities and agendas ✓ Investment in politically favored projects despite financial risk or deviation from sound principles ✓ Sudden and significant changes in strategies coinciding with political events ✓ Politically connected appointments lacking relevant expertise ✓ Direct influence or pressure from political figures on investments.	Andonov *et al*. (2018)
3.	Investment Guidelines	✓ Diversified portfolio across asset classes per guidelines. ✓ Thorough due diligence for investment assessment. ✓ Emphasis on capital preservation and consistent income for long-term obligations. ✓ Regular performance reviews against benchmarks and adjustments as needed. ✓ Recognition of liquidity management importance, considering obligations and market conditions.	Chinazam and Nnaemeka (2023) Aslan, (2023),
4.	Ethical Guidelines	✓ Responsibility instilled through ethical guidelines ✓ Transparency and accountability culture in investment decisions, ✓ Integrity, professionalism, and ethical conduct promoted by guidelines ✓ Embracing role as ethical stewards of pension fund assets	Musalem and Palacious (2019)

		✓ Considering broader impact of investment decisions on society, environment, and corporate governance.	

3.3 Model Specification

The study employed Structural Equation Modeling (SEM) was employed, which is a statistical approach used to measure and analyze the relationships between both observed and latent variables while accounting for measurement error. This method is more powerful than regression analyses, as it accounts for measurement error in both independent and dependent variables and provides more accurate and reliable results. Furthermore, it allows for the simultaneous analysis of multiple interdependent relationships, and enables the exploration of latent variables, providing insights into unobserved phenomena. Finally, it can handle complex data structures, such as non-normal distributions and missing data, which traditional regression analyses cannot. The structural equation model was specified as follows:

$$\boldsymbol{\eta} = \boldsymbol{\beta}\,\boldsymbol{\eta} + \boldsymbol{\Gamma}\,\boldsymbol{\xi} + \boldsymbol{\zeta}$$

Where;
$\boldsymbol{\eta}$ is a vector of dependent or endogenous variables,
ξ is a vector of independent or exogenous variables,
ζ is a vector of disturbance terms.
β represents the regression co-efficient, linking the endogenous variables to each other, $\boldsymbol{\Gamma}$ represents the regression coefficients linking endogenous variables to exogenous variables.

4. Empirical Evidence

4.1 Descriptive Analysis

Descriptive analysis involves examining the central tendencies, variations and distributions of the responses. Means and standard deviations are calculated to determine the average values and dispersion of the data, while frequencies are assessed to identify the occurrence of specific responses or categories within the dataset. By analyzing the descriptive statistics, patterns and trends within the data can be identified. This provides a deeper understanding of the participants' perspectives and provides insights into the variables under investigation. The descriptive statistics serve as a foundation for further analysis and interpretation, and facilitates the exploration of relationships. Table 2 prescribes the results of the descriptive analysis of this study.

The participants were requested to rate their level of agreement or disagreement with a series of statements using a five-point scale, with 1 indicating strong disagreement and 5 representing strong agreement. The scale utilized in this study had a uniform distance of 0.8 between each point, allowing for equal intervals across the range of 1 to 5. By employing this scale, the study aimed to capture variations in the participants' responses and enabled a comprehensive understanding of their perspectives. In accordance with the aggregation principle proposed by Sözen and Güven (2019), the scores obtained from the respondents' ratings were categorized into five levels of agreement. This categorization was based on predefined ranges of scores. Scores falling within the range of 1 to 1.80 were classified as "strongly disagree," indicating a significant disagreement with the statements presented. Scores between 1.81 and 2.60 were labeled as "disagree," reflecting a lower level of agreement. Moreover, scores ranging from 2.61 to 3.40 were considered as "neither agree nor disagree," suggesting a neutral stance or ambivalence towards the statements. Scores falling within the range of 3.41 to 4.20 were categorized as "agree," indicating a level of agreement with the statements.

Lastly, scores ranging from 4.21 to 5 were labeled as "strongly agree," signifying a strong alignment of the participants' views with the presented statement. The findings presented in Table 5 provide valuable insights into the factors influencing investment decisions of pension funds in Tanzania. *R*egarding the ethical guideline variable, the respondents' average mean of 3.36 indicates a neutral position suggesting that there is neither agreement nor disagreement among the participants regarding the influence of ethical guidelines on investment decisions. Regarding the investment guideline variable, the respondents strongly agree with an average mean of 4.70, that investment guidelines have good proposals for guiding investment decisions. This indicates that participants perceive the investment guidelines to be comprehensive and effective in providing guidance for making investment-related choices. In terms of political interferences, respondents exhibit a strong agreement with an average mean of 4.34, that political activities interfere with investment decisions indicating that external political factors have a negative impact on the decision-making process when it comes to investments. Lastly, investment decision variable reveals that respondents disagree with an average mean of 1.68, regarding the existence of good investment decisions. This suggests that participants do not perceive the current investment decisions to be satisfactory or effective.

Table 2: Descriptive Results of the Respondents' Opinions

Variable	Indicator	Mean	Average Mean	Interpretation
Ethical Guideline	Ethical Guide 1	2.55	3.36	Neither agree ethical guideline to influence Investment Decision
	Ethical Guide 2	3.68		
	Ethical Guide 3	3.93		
	Ethical Guide 4	3.35		
	Ethical Guide 5	3.28		
Investment Guideline	Investment Decision 4	4.45	4.70	Strong agree investment guideline consist good proposal on guiding Decisions
	Investment Decision1	4.73		
	Investment Decision2	4.72		
	Investment Decision3	4.74		
	Investment Decision5	4.88		
Political Interferences	Political Interferaence1	4.98	4.34	Strong Agree Political Interference have negative influence Investment Decisions
	Political Interferaence2	4.13		
	Political Interferaence3	4.33		
	Political Interferaence4	4.11		
	Political Interferaence5	4.14		
Investment Decision	Investment Guide1	1.77	1.68	Dis-agree on existence of good investment decisions
	Investment Guide2	1.55		
	Investment Guide3	1.14		
	Investment Guide4	2.25		

4.2 Diagnostic Tests

The justification for using a Structural Equation Model (SEM) was approved after conducting several diagnostic tests, such as convergence validity test, divergence validity test, and collinearity test. These tests help to evaluate the quality of the data and the suitability of SEM for the analysis.

4.2.1. Multicollinearity Test

Multi-collinearity is a common issue in structural equation modeling (SEM) that occurs when two or more predictor variables in a model are highly correlated with each other. This can lead to unstable estimates of the regression co-efficients and inflated standard errors, making it difficult to interpret the results of the analysis. To

detect multi-collinearity in SEM, several diagnostic tests were used, including the Variance Inflation Factor (VIF), which measures the extent to which the variance of the estimated coefficients is increased due to collinearity (Hair *et al.,* 2017). VIF values greater than 5 indicate high multi-collinearity, while values between 1 and 5 suggest moderate multicollinearity as recommended by Kock (2015). The study conducted a collinearity test using the Variance Inflation Factor (VIF) which assesses how much the variance of an estimated regression co-efficient is increased due to the correlation among the predictor variables. The multi-collinearity test results in Table 3 indicate that all variables have VIF values below the commonly used cut-off value of 5, which suggests no serious multi-collinearity issue in the model.

Table 3: Multicollinearity Test

Variable	Indicator	Outer VIF	Inner VIF
Ethical Guideline	Ethical Guide 1	2.180	1.32
	Ethical Guide 2	1.747	
	Ethical Guide 3	1.959	
	Ethical Guide 4	1.505	
	Ethical Guide 5	1.493	
Investment Guideline	Investment Guide1	1.536	1.21
	Investment Guide2	1.602	
	Investment Guide3	1.220	
	Investment Guide4	1.249	
Political Interferences	Political Interferaence1	1.829	1.55
	Political Interferaence2	2.074	
	Political Interferaence3	1.424	
	Political Interferaence4	1.251	
	Political Interferaence5	1.318	
Investment Decisions	Investment Decision 4	1.713	
	Investment Decision1	1.784	
	Investment Decision2	2.483	
	Investment Decision3	2.410	
	Investment Decision5	1.259	

4.2.2. Validity and reliability

The study conducted both convergence and discriminant validity analysis of the Structural Equation Model. Convergent validity was assessed by examining the factor loadings of the measurement items on their respective constructs, and by ensuring that the items have high levels of intercorrelations within their constructs. Generally, factor loadings of 0.5 or higher are considered acceptable as recommended by Hair *et al.* (2017). Also, for convergent validity the study used average variance extracted (AVE), to measure the amount of variance that is captured by the construct relative to the amount of variance due to measurement error. A value of 0.5 or higher is generally considered acceptable for convergent validity as recommended by Hair *et al.* (2017). The idea is that the construct should explain at least 50% of the variance in its indicators.

Regarding convergent validity, the study considered factors loading and average variance extracted tests. Factor loading refers to the correlation between the observed variables and the latent variable in the model. Therefore, it measures the extent to which each observed variable contributes to the measurement of the underlying construct. In terms of factors loading, the findings of the study, as per Table 4, indicate the following: For the *ethical guideline variable*, all five indicators demonstrate strong loadings, ranging from 0.723 to 0.856. These high factor loadings suggest that the indicators are good measures of the ethical guideline construct. Similarly, the *investment*

guideline variable shows strong factor loadings, with all five indicators ranging from 0.744 to 0.835 indicating that the indicators are reliable measures of the investment guideline construct. The investment decision variable also exhibits strong loadings for its four indicators, ranging from 0.710 to 0.891suggesting suggest that the indicators effectively measure the investment decision construct.

Regarding *political interferences*, all five indicators demonstrate strong factor loadings, ranging from 0.708 to 0.869 revealing that the indicators are good measures of the political interferences construct. Overall, the factor loadings for all variables in the study are strong, exceeding the commonly accepted threshold of 0.5. This implies that the observed variables are reliable measures of their respective constructs. Consequently, the model employed in the study is likely to accurately capture and assess the underlying constructs of ethical guideline, investment guideline, investment decision, and political interferences.

In terms of Average Variance Extracted (AVE), which assesses the amount of variance explained by the latent variable in the observed variables, the study findings as per Table 2 indicate that all the AVE values for the constructs in the model are above the threshold of 0.5 suggesting that the constructs adequately explain the variance in their respective indicators. Specifically, *the ethical guideline construct* has an AVE of 0.53, *investment guideline* has an AVE of 0.515, *investment decision* has an AVE of 0.539, and *political interferences* have an AVE of 0.602. Such AVE values indicate that the constructs are reliable, as they account for more than 50% of the variance in their indicators. Overall, the findings suggest that the constructs in the model have satisfactory convergent validity. This means that they are well-represented by their respective indicators, and the observed variables effectively capture the underlying constructs.

Table 4: Factor Loading and Average Variance Extracted

Variable	Indicator	Factor Loading	Average Variance Extracted
Ethical Guideline	Ethical Guide 1	0.791	
	Ethical Guide 2	0.723	
	Ethical Guide 3	0.856	
	Ethical Guide 4	0.800	
	Ethical Guide 5	0.842	0.53
Investment Guideline	Investment Decision 4	0.744	
	Investment Decision1	0.769	
	Investment Decision2	0.822	
	Investment Decision3	0.781	
	Investment Decision5	0.835	0.515
Investment Decision	Investment Guide1	0.710	
	Investment Guide2	0.891	
	Investment Guide3	0.745	
	Investment Guide4	0.821	53.9
Political Interferences	Political Interferaence1	0.708	
	Political Interferaence2	0.869	
	Political Interferaence3	0.748	
	Political Interferaence4	0.767	
	Political Interferaence5	0.774	0.602

On the other hand, discriminant validity was assessed by examining the correlations between the constructs and ensuring that they are not too high, which would indicate that the constructs were measuring the same thing (Hair

et al., 2017). For discriminant validity the study used the heterotrait-monotrait (HTMT) ratio of correlations, which compared the correlations between the constructs to the correlations between the items within the same construct. The rule of thumb for HTMT is that values below 0.9 indicate discriminant validity as recommended by (Shiau *et al.,* 2019). Therefore, if the correlation between two constructs is significantly lower than the correlation between the items within each construct, then discriminant validity is supported.

The findings presented in Table 5 provide evidence of the discriminant validity of the measures. According to the Fornell-Larcker Criterion, the square root of the AVE for each latent variable is compared to the correlations between that variable and all other latent variables in the model. The results indicate that the AVE values for each construct are greater than the correlations with other constructs, demonstrating that the measures have stronger relationships with their respective indicators than with indicators of different constructs. This confirms the discriminant validity of the measures. Additionally, the HTMT values presented in Table 5 are all below the recommended threshold of 0.9. The HTMT ratio assesses the strength of correlation between measures of the same construct compared to measures of different constructs. The values obtained in this study suggest that the measures exhibit stronger correlations within the same construct, supporting the distinctiveness of each construct being measured.

Overall, based on the results of the Fornell-Larcker Criterion and HTMT tests, the measures used in the study demonstrate good discriminant validity implying that the measures effectively capture the intended constructs, and can be considered reliable indicators of the underlying constructs. The findings provide confidence in the study's measurement approach and support the validity of the results and subsequent inferences drawn from the data.

Table 5: Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT)

Fornell-Larcker Criterion				
	Ethical Guideline	**Investment Decisions**	**Investment Guideline**	**Political Interferences**
Ethical Guideline	0.729			
Investment Decisions	0.284	0.734		
Investment Guideline	0.175	0.472	0.674	
Political Interferences	0.490	0.549	0.416	0.664
Heterotrait-Monotrait Ratio (HTMT)				
	Ethical Guideline	**Investment Decisions**	**Investment Guideline**	**Political Interferences**
Ethical Guideline				
Investment Decisions	0.347			
Investment Guideline	0.285	0.801		
Political Interferences	0.673	0.676	0.587	

In terms of reliability the study used composite reliability (CR) test and Cronbach alphas test. Composite reliability (CR) is a commonly used measure of internal consistency reliability in structural equation modeling (SEM) and is calculated by dividing the square of the sum of the standardized loadings of the indicators by the sum of the squares of the loadings and error variances (Hair *et al.*, 2017). Generally, a CR value of 0.7 or higher is considered acceptable for assessing the reliability of a scale as recommended by Abbasi *et al.* (2022). Cronbach's alpha is another measure of internal consistency reliability calculated as the average of all possible split-half correlations between items and provides an estimate of the extent to which all items in a scale measure the same construct (Nunnally, 1978). A value of 0.7 or higher is generally considered acceptable for assessing the reliability of a scale as recommended by De Vellis (2017).

The results in Table 6 indicate that all latent variables in the study demonstrate acceptable levels of reliability, revealing that latent variables have Cronbach's alpha values above the recommended threshold of 0.7. This suggests good internal consistency of the measures, indicating that the items used to assess each latent variable ideally measure the same underlying construct, and are reliable indicators of that construct. The Rho_A values for all latent variables, which reinforce the findings from Cronbach's alpha, are also above the recommended threshold of 0.7. This indicates good internal consistency and reliability of the measures in capturing the constructs they intend to measure. Table 4 further shows that the composite reliability values for all latent variables are greater than 0.7 indicating good construct reliability. This further, suggests that the measures are likely to be reliable indicators of the underlying constructs. The composite reliability values corroborate the findings from Cronbach's alpha. Based on the results of the reliability analysis, it can be concluded that the measures used in the study are reliable indicators of the latent variables. The good internal consistency, as demonstrated by Cronbach's alpha and Rho_A, along with the satisfactory construct reliability indicated by the composite reliability values, provides confidence in the reliability of the measures.

Table 6: Composite Reliability, Rho_A and Cronbach's Alpha

	Cronbach's Alpha	Rho_A	Composite Reliability
Ethical Guideline	0.778	0.824	0.848
Investment Decisions	0.786	0.799	0.852
Investment Guideline	0.829	0.735	0.765
Political Interferences	0.888	0.896	0.794

4.3 Regression Results

This study mainly aimed at examining factors influencing investment decisions of pension funds in Tanzania. To assess the importance of the relationships between the independent variables, a structural equation model was developed and subjected to rigorous testing. The structure model path coefficients are presented in figure 1 below.

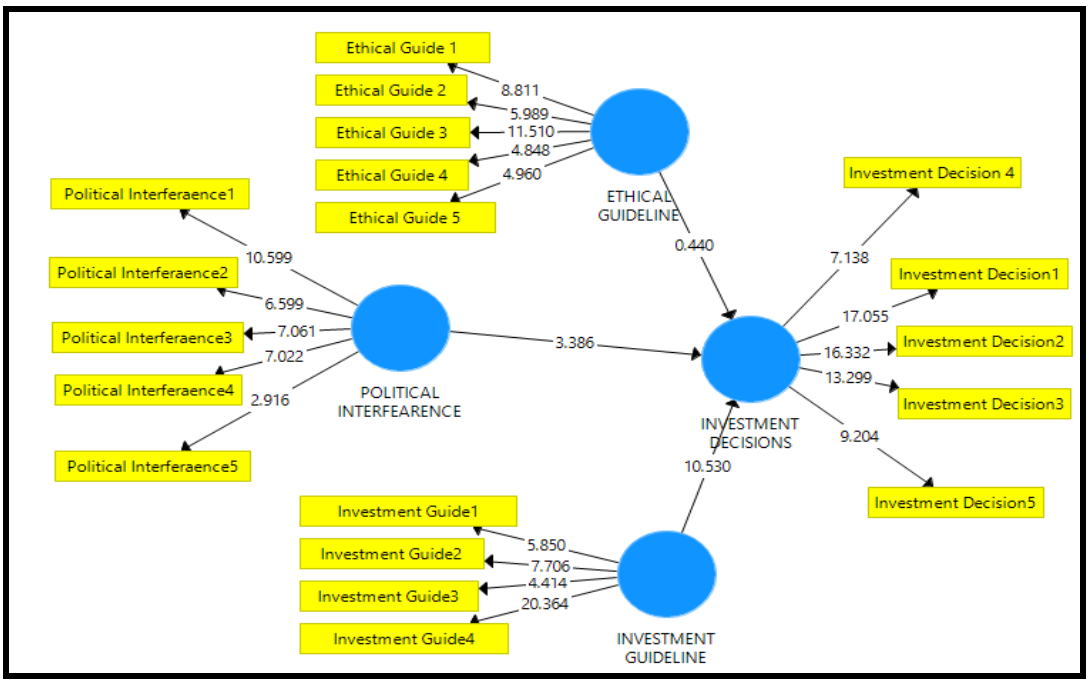

Figure 1: Structure Model Path Coefficients

To examine the significance of the model, the study employed *R-square* and *adjusted R-square* measures. Table 7 presents the results for the variables related to investment decisions. *R-square* values used to provide insights into the proportion of variance in investment decisions that can be explained by the explanatory variables,

including ethical guidelines, political interference, and investment guidelines. In the original sample, the R-square value for investment decisions is 0.540, indicating that 54% of the variance in investment decisions can be explained by the specified independent variables. On average, the independent variables explain 57.9% (sample mean R-square value) of the variance in investment decisions. The standard deviation of 0.059 suggests the proportion of variance explained by the independent variables varies to some extent across different samples.

Adjusted R-square also presented in Table 7 accounts for the number of independent variables in the model. The adjusted R-square value of 0.527 in the original sample suggests that after adjusting for the number of independent variables, 52.7% of the variance in investment decisions can be explained by the specified independent variables. On average, the independent variables perform slightly better, with a sample mean adjusted R-square value of 0.566. The standard deviation of 0.061 for the adjusted R-square values indicates some variability in the adjusted R-square across different samples. The findings reveal that the model is statistically significant as indicated by the P-values in Table 7. Both the R-square and adjusted R-square analyses show P-values of 0.000, which are below the conventional threshold of 0.05. This indicates that the relationships between the independent variables (ethical guidelines, political interference, and investment guidelines) and investment decisions are not due to chance, but rather are likely to be meaningful and reliable.

Table 7: Model Significance

R Square					
	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
Investment Decisions	0.540	0.579	0.059	9.098	0.000
R Square Adjusted					
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Investment Decisions	0.527	0.566	0.061	8.612	0.000

4.3.1. Political Interferences and Investment Decision

The regression results presented in Table 8 reveals that political interference and investment decision are negatively related and the relationship is statistically significant at 1% significant level. The results show that political interference exhibits negative influence on the investment decision. The negative influence of political interference on investment decisions can be attributed to several possible factors. *First*, political interference may introduce biases and distortions in the decision-making process, as decisions may be driven by political motivations rather than sound investment principles or economic considerations. This can result in investments being directed towards politically favored projects or sectors that may not align with the long-term financial goals of the pension funds. *Second*, political interference may undermine the independence and autonomy of the decision-making bodies or investment committees responsible for managing the pension funds. When political actors exert influence or pressure on these bodies, it can compromise their ability to make objective and informed investment decisions based on rigorous analysis and evaluation of risks and returns. The results are consistent with agency theory as supported by Jung & Kwon, (2017) in a similar study highlighting that if there is political interference, agents may be incentivized to make decisions that align with political goals rather than the fund's long-term objectives.

The results of this study are also consistent with Clark & Monk, (2012) who insisted that political interventions might constrain investment choices or force pension funds to prioritize politically desirable investments over those with better financial returns, potentially leading to poor investment decisions. Likewise, the results are in line with Bradley *et al.* (2016) and Andonov *et al.* (2018) who reported a negative relationship between political interference and investment decision in USA pension funds. On the other hand, the results are contrary to Dixon, (2008) who reported a positive relationship between investment decision and political interference highlighting that political

interventions might encourage pension funds to invest in sectors or projects that have long-term benefits or align with societal goals, such as infrastructure development or renewable energy.

4.3.2. Investment Guideline and Investment Decision

The findings reported in Table 8 indicate that investment guideline has a positive relationship with the investment decision of pension funds in Tanzania. The relationship is statistically significant at 1% significant level. Several factors can be attributed to these results. *First*, investment guidelines provide a framework and a set of principles that guide the investment decision-making process. They outline the objectives, strategies and criteria for selecting investment opportunities, as well as risk management practices. By having clear and well-defined guidelines, pension funds can make more informed and structured investment decisions, considering factors such as asset allocation, diversification, risk-return trade-offs and alignment with their long-term financial goals.

Second, investments guidelines help to establish consistency and standardization in the investment decision-making process. They provide a common reference point for evaluating and comparing investment opportunities, ensuring that decisions are based on objective criteria rather than personal preferences or arbitrary factors. This helps to reduce subjectivity and potential biases in the decision-making process, leading to more rational and disciplined investment decisions.

Thirdly, investment guidelines promote transparency and accountability. The guidelines dictate the roles and responsibilities of the decision-makers, specify reporting and monitoring requirements, and establish mechanisms for evaluating the performance of investments. By adhering to these guidelines, pension funds enhance their governance practices, ensure proper oversight of investment activities, and maintain accountability to stakeholders. The findings are in line with agency theory's emphasis on clear objectives and guidelines. Based on agency theory investment guidelines serve as a principal tool to align the actions of agents with their interests, reducing agency conflicts. The study's results underscore the importance of well-defined and comprehensive investment guidelines that provide clear directions, criteria and restrictions. By establishing a framework for decision-making, investment guidelines can enhance the quality of investment decisions within pension funds. The results are also consistent with Bradley *et al.* (2016) and Andonov *et al.* (2018) who reported a positive relationship between investment guideline and pension investment decision.

4.3.3. Ethical Guidelines and Investment Decision

Table 8 shows a statistically insignificant positive relationship between ethical guideline and pension fund investment decision. This implies that ethical guideline has no or little influence on the investment decisions of pension funds in Tanzania.

Several possible reasons may be considered to account for such results, particularly in relation to political interference. *Firstly*, it is important to acknowledge that Tanzania operates within a political landscape where there may be a lack of stringent enforcement and oversight of ethical guidelines. Political interference or influence in the decision-making processes of pension funds could potentially undermine the implementation and effectiveness of ethical guidelines. In such cases, investment decisions might be driven more by political considerations rather than ethical concerns, leading to a diminished influence of ethical guidelines on investment choices.

Secondly, political interests and objectives could prioritize economic and developmental goals over ethical considerations within the investment decisions space of pension funds. Moreover, political interference can introduce favouritism or patronage into investment decisions, potentially overshadowing ethical considerations. This could result in investments being directed towards politically connected individuals or entities, regardless of their adherence to ethical guidelines. When political interests override ethical principles, it diminishes the influence of such guidelines on investment decisions. Furthermore, the absence of strong regulatory frameworks and mechanisms to ensure accountability and transparency may contribute to the limited influence of ethical guidelines on investment decisions. In the absence of robust monitoring and enforcement mechanisms, pension funds may not feel compelled to prioritize ethical considerations when making investment choices.

Table 8: Regression Results

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Ethical Guideline -> Investment Decisions	0.040	0.091	0.440	0.660
Political Interferences -> Investment Decisions	-0.537	0.051	-10.530	0.000
Investment Guideline -> Investment Decisions	0.306	0.090	3.386	0.001

5. A Concluding Remark

This paper aimed at examining the relationship between pensions fund investment decision and political interference, investment guidelines and ethical guidelines employing structural equation modelling. The study reveals that political interference has a negative influence on investment decisions, indicating that increased political interference leads to a decrease in the quality of investment decisions. Conversely, investment guidelines demonstrate a positive influence, where sticking to investment guideline directives result in improved investment decisions. However, the study found no significant influence of ethical guidelines on investment decisions, suggesting that ethical guidelines do not play a significant role in shaping the investment decisions of pension funds in Tanzania.

The findings provide a several theoretical insights. *Firstly*, the negative influence of political interference on investment decisions aligns with Agency Theory's premise that external influences can compromise an agent's fiduciary duty to act in the best interests of the principal. The findings highlight the need to minimize agency conflicts caused by political interference. To ensure quality investment decisions, governance mechanisms should be strengthened, promoting independence and insulating investment managers from undue political pressures. Further, the negative influence of political interference on investment decisions highlights the need for funds to establish robust governance mechanisms to safeguard against undue political pressures. This entails ensuring independence in investment decision-making processes and minimizing external influences that may compromise the fiduciary duty to maximize returns for fund beneficiaries.

Secondly, the positive influence of investment guidelines on investment decisions supports Agency Theory's emphasis on clear objectives and guidelines. Investment guidelines serve as a principal tool to align the actions of agents with their interests, reducing agency conflicts. The results underscore the importance of well-defined and comprehensive investment guidelines that provide clear directions, criteria and restrictions. By establishing a framework for decision-making, investment guidelines can enhance the quality of investment decisions within pension funds. Also, the paper recommends funds to prioritize the development and implementation of clear investment guidelines that provide specific directions, criteria, and restrictions. These guidelines can serve as a framework for investment managers, promoting consistency, risk management and alignment with the funds' long-term objectives. Regular reviews and updates of investment guidelines will ensure their relevance and effectiveness in guiding investment decisions.

Thirdly, the insignificant influence of ethical guidelines on investment decisions presents an interesting theoretical implication within the context of Agency Theory. This raises questions about the effectiveness of ethical guidelines in mitigating agency conflicts. Further, further research is warranted to explore the mechanisms through which ethical considerations interact with agency dynamics and decision-making processes within pension funds. Examining the role of ethical guidelines from an Agency Theory perspective can provide valuable insights into how these guidelines can be better integrated into the governance structures of pension funds. While ethical guidelines may not directly shape investment decisions, it is important for the funds to recognize the broader societal and reputational implications of their investment practices. Funds should consider incorporating ethical considerations into their investment frameworks, including responsible investment principles and environmental, social and governance (ESG) factors. This can help to promote sustainable and socially responsible investment practices, aligning the funds with global best practices and stakeholders' expectations.

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