European Journal of Economic and Financial Research
ISSN: 2501-9430
ISSN-L: 2501-9430
Available on-line at: http://www.oapub.org/soc

DOI: 10.46827/ejefr.v10i1.2132 Volume 10 | Issue 1 | 2026

GOVERNANCE QUALITY, INVESTMENT STRATEGY, AND PENSION FUNDING ADEQUACY IN KENYA: AN EMPIRICAL ANALYSIS

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Abstract:
This study assessed the influence of corporate governance and investment strategy on the financial performance of pension funds in Kenya over the period 2012–2022. The study used a mixed-methods approach, combining qualitative and quantitative designs, using primary survey data and secondary pension performance data. Corporate governance and investment strategy were measured through survey-based indices, while pension fund performance was assessed using financial return indicators. A multi-equation analytical framework was applied to examine direct, mediating and joint effects. The results reveal that corporate governance practices have a significant positive effect on pension fund performance. Investment strategy plays a critical mediating role, enhancing the effectiveness of governance practices in improving financial outcomes. The study concludes that pension fund performance in Kenya is jointly determined by governance quality and investment strategies, underscoring their importance for fund managers, regulators, and policymakers in promoting sustainable retirement income security.

JEL: G23 – Non-bank Financial Institutions; Institutional Investors (including pension funds); G34 – Mergers; Acquisitions; Corporate Governance; G11 – Portfolio Choice; Investment Decisions; G28 – Government Policy and Regulation; C33 – Panel Data

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Models; Longitudinal Data; C83 – Survey Methods; Sampling Methods; J32 – Private Pensions

Keywords: corporate governance, investment, pension performance, return on investment

1. Introduction

The performance of pension funds in Kenya has become an increasingly important area of focus, given its role in ensuring retirement security and promoting long-term financial stability. Currently, Kenya's pension assets account for about 13% of GDP (RBA, 2022). Despite regulatory reforms by the Retirement Benefits Authority (RBA) aimed at enhancing transparency and accountability, as well as prudent fund management, the performance of pension funds remains wanting. A number of schemes still experience underperformance. An in-depth evaluation of determinants is essential to improve fund sustainability, protect members' benefits, and strengthen the resilience of Kenya's financial system.

Corporate governance has become a critical global issue following major financial crises and corporate failures that exposed weaknesses in pension fund oversight. Although pension schemes play an important role in economic development and retirement security, evidence on how governance structures influence their performance remains limited and often inconclusive. In addition, it is postulated that performance is influenced by other factors, such as investment strategy, given the high exposure of pension funds to market risks, which affect asset values. Existing research shows links among governance, investment decisions, and pension fund outcomes, but findings vary across contexts. The study therefore examined the individual and combined effects of corporate governance and investment strategy on the financial performance of pension schemes in Kenya.

1.1 Corporate Governance

Scholars such as Garzón Castrillón, Manuel Alfonso (2021) aver that corporate governance (CG) has undergone significant evolution in recent years, underscoring its critical role in establishing an organization's operational framework. This evolution highlights the increasing relevance of fundamental CG principles, including transparency, accountability, and ethical conduct, that are crucial for fostering trust among stakeholders and enhancing overall organizational performance.

Definitions of corporate governance vary considerably (Claessens, 2003), making it lack a universally accepted definition. Scholars have, however, proposed several perspectives. Carmichael and Palacios (2003) describe governance as the systems and processes through which organizations achieve objectives while managing stakeholder conflicts. The International Organization of Pension Supervisors (IOPS) defines pension governance as the framework guiding management decisions in pension funds,

encompassing board structure, decision-making processes, requisite skills, and accountability mechanisms (IOPS, 2008–2009). Garzón Castrillón, Manuel Alfonso (2021) suggests that the ultimate purpose of the good governance of the company is to add value to it, and to ensure that those who contribute directly or indirectly to its generation can participate in the increase in value. Chow (2005) and Shleifer and Vishny (1997) are of the opinion that corporate governance (CG) influences firm behavior, performance, and investor confidence, reducing managerial misappropriation. Thus, common principles include accountability, transparency, fairness, and disclosure (Bhasin, 2013), and the G20/OECD (2009) has promoted these to ensure sustainable growth and financial stability.

Governance is crucial in pension schemes, as failures like the 1997 Asian financial crisis, the Enron collapse in the US, and the Swissfirst pension scandal have underscored the risks of weak governance (Stewart & Yermo, 2008). Governance regulation primarily aims to mitigate agency problems and conflicts of interest that compromise pension security. Effective governance supports regulatory oversight, reduces overregulation costs, and fosters economic growth (Watson, 2007). Nevertheless, pension fund performance has often been mixed, raising concerns about their capacity to meet obligations (Impavido, 2002).

Empirical studies by Ambachtsheer (2001), Useem & Mitchell (2000), Iglesias & Palacios (2000), Chen *et al.* (2001), and 2002 show that good governance improves pension outcomes and firm performance. It ensures effective contract execution, reduces risk, and motivates agents to act in shareholders' interests (Eisenhardt, 1989; David & Impavido, 2003).

To address governance weaknesses, policymakers have introduced legal, regulatory, and voluntary measures. Such included the US Sarbanes-Oxley Act (2002), which sought to protect investors from inaccurate financial reporting. In Kenya, the enactment of the Retirement Benefits Authority Act (RBA) Cap 197 of 1997 established governance standards for pension schemes (RBA, 2014). Additionally, the State Corporations Advisory Committee (SCAC) developed a code of conduct promoting excellence in governance, covering board responsibilities, transparency, accountability, risk management, and shareholder rights (PSC & SCAC, 2015). Despite these efforts, governance weaknesses persist, contributing to underperformance and raising questions about additional factors affecting pension fund outcomes.

1.2 Investment Strategy

Investment strategy refers to a set of rules or guidelines intended to help investors select investment portfolios based on investment objectives and the tradeoff between risk and return (Bilaus, 2010). The *Business Dictionary* (2018) similarly defines investment strategy as a systematic approach to selecting financial assets that reflects an investor's goals, risk tolerance, time horizon, and prevailing economic conditions.

As a central element of portfolio management, investment strategy is critical to the performance and sustainability of pension funds, which constitute a substantial segment

of the global investment industry (Tonks, 2006). The investment process, nonetheless, faces a wide range of risks, including inflation, market, credit, solvency, governance and agency risks, as well as legal and regulatory constraints, all of which may undermine retirement income adequacy (Obermann, 2005). Effective management of these risks is therefore essential for ensuring long-term fund sustainability. Investment strategy provides a key mechanism for controlling exposure to these risks while enhancing expected returns (Raz, 2005). Asset selection within pension portfolios varies according to short- and long-term objectives, risk appetite, and acceptable levels of return volatility, implying that no single investment strategy is universally applicable to all pension schemes.

International best practice, as advocated by the OECD and the Committee of European Insurance and Occupational Pension Supervisors (CEIOPS), requires pension funds to comply with established investment management standards. Central to these standards is the adoption of a written investment policy statement, which should be reviewed periodically and aligned with applicable legal frameworks. The policy is expected to articulate the fund's objectives, permissible asset classes, selection criteria, performance measurement and benchmarking frameworks, as well as guidelines for appointing and monitoring external fund managers. Commonly adopted strategies include active and passive management, asset allocation, diversification, portfolio allocation limits, indexing, market timing, and international investment (Urwin, 2010).

The choice of investment strategy is further shaped by the regulatory environment, which is closely linked to the level of capital market development (Mitch, 2006). Antolin (2008) notes that underdeveloped capital markets tend to impose quantitative investment restrictions, whereas more advanced markets rely on the prudent person rule, which is a behaviorally oriented standard (Tapia & Waldo, 2008a). Scholars argue that as capital markets deepen, investment restrictions should be progressively relaxed to facilitate the adoption of the prudent person approach. Stewart (2010) further observes that weaknesses in risk management frameworks contributed to poor pension fund performance during the global financial crisis. Despite pension assets in Kenya accounting for approximately 13 percent of GDP, empirical evidence on the relationship between pension fund investment strategy and performance remains limited.

1.3 Pension Schemes in Kenya

A pension scheme is a long-term social protection arrangement intended to provide income security in old age or in the event of serious illness or death through contributions made by employers, employees, or both, which are invested to generate retirement benefits (Business Dictionary, 2019). Pension funds, therefore, operate as major institutional investors, mobilizing long-term savings and channeling them into the economy to support investment and consumption (Davis, 1995a). They are classified based on two approaches: functional and institutional dimensions, resulting in either

being public or private, occupational or personal, Defined Benefit (DB) or Defined Contribution (DC), and funded or unfunded schemes.

Occupational pension schemes, the focus of this study, are funded arrangements established by employers under trust law to meet the retirement needs of their employees. The schemes may be mandatory or voluntary and may adopt DB, DC, or provident fund structures (Bodie *et al.*, 1988). Despite their importance, occupational pension schemes are exposed to uncertainty in asset performance and long-term funding sustainability. Since trustees manage pension assets on behalf of beneficiaries, governance becomes a central concern. Besley and Prat (2003) contend that incomplete beneficiary control over fund management heightens agency problems, making robust governance structures essential for effective monitoring, accountability, and protection of members' interests.

Kenya's pension system is structured around four main pillars, regulated by the Retirement Benefits Authority (RBA): the Public Service Pension Scheme, the National Social Security Fund (NSSF), occupational pension schemes, and individual pension plans. Public Service Pension Scheme is a contributory scheme for public servants (PSSS) with the government contributing 15% and employees contributing 7.5% of their basic salary. National Social Security Fund (NSSF) is a mandatory national scheme for both formal and informal sectors, operating under the NSSF Act, 2013, while Occupational Pension Schemes are employer-sponsored plans which can be standalone or participate in umbrella schemes, allowing smaller employers to pool resources. Individual Pension Plans, on the other hand, are schemes for self-employed individuals or those without employer-sponsored plans, offering flexible contributions and tax advantages. As at December 2022, there were a total of 1,302 registered schemes, of which 1,268 were occupational pension schemes, and 34 were individual pension plans. A significant proportion of occupational schemes participate in 26 umbrella retirement benefits schemes, enabling smaller employers to pool resources when establishing standalone schemes is financially impractical. The sector has experienced substantial growth, with retirement benefits assets under management increasing from KS 697 billion in December 2013 to KS 1,167 billion in June 2018 (RBA, 2018).

Before 1997, Kenya's pension sector was largely unregulated and lacked a coherent policy and supervisory framework, limiting its effectiveness as a social protection mechanism. This gap prompted government intervention through the enactment of the Retirement Benefits Authority (RBA) Act, Cap 197 of 1997, which established the RBA. The Authority is mandated to regulate, supervise, and promote the orderly growth and development of retirement benefits schemes, thereby strengthening governance, enhancing member protection, and supporting the long-term sustainability of the pension sector.

2. Research Problem

Regional market crises and large corporate failures over the past two decades have underscored the crucial role of effective pension governance in safeguarding retirement savings. Events such as the 1997 Asian Financial Crisis, the 2008 Global Financial Crisis, and high-profile corporate scandals exposed significant governance weaknesses that undermined pension funds' ability to preserve and grow assets, thereby intensifying agency problems between fund managers, trustees, and beneficiaries. These developments prompted the implementation of widespread corporate governance reforms. However, evidence on their effectiveness in improving pension fund performance remains mixed and inconclusive.

In Kenya, governance challenges within the pension sector have persisted despite the enactment of the Retirement Benefits Authority Act in 1997. Cases of misappropriation of pension assets, weak oversight, and lack of transparency, exemplified by losses at KEMRI, NSSF, and KPA pension schemes, have continued to threaten the sustainability of occupational pension funds and their capacity to meet retirement obligations. These challenges are further compounded by the type of investment strategies being applied that affect investment returns.

While prior studies suggest that good corporate governance and sound investment strategies enhance pension fund performance, empirical findings are inconsistent. Moreover, most evidence available is drawn from developed and emerging economies. In Kenya, existing studies are limited in number, are largely sector-specific, and tend to examine these factors in isolation, without accounting for their combined or interactive effects. Consequently, there is limited empirical evidence to show how corporate governance and investment strategy influence the financial performance of occupational pension funds in Kenya. This gap necessitates a comprehensive, multi-factor investigation to provide clearer insights into the impact of the two factors on pension fund performance in the country, a developing economy context.

2.1 Research Objectives

The main objective of this study is to assess the relationship between the financial performance of occupational pension funds and the factors of corporate governance and investment strategy in Kenya for the period 2013-2022. Specifically, the study seeks to:

1) Examine the effect of corporate governance on the market value of occupational pension funds.
2) Determine the moderating role of investment strategy in the relationship between corporate governance and the financial position of occupational pension funds.
3) Evaluate the joint effect of corporate governance and investment strategy on the financial position of occupational pension funds in Kenya.

3. Theoretical Foundation of the Study

This study is anchored on Agency Theory as the founding theory, supported by the Modern Portfolio Theory (MPT), the Stakeholder Theory (SHT), and the Arbitrage Pricing Theory (APT). Collectively, these theories provide a comprehensive framework for explaining the relationship between corporate governance, investment strategy, macroeconomic factors, and the financial performance of occupational pension funds.

3.1 Agency Theory

Agency Theory of Jensen and Meckling (1976), explains the contractual relationship between the principal (owners or beneficiaries) and the agent (managers or trustees) who is delegated authority to act on the principal's behalf. The theory posits that agents may not always act in the best interests of principals, particularly when their personal objectives, risk preferences, and access to information diverge from those of the principals.

The theory hypothesis that organizational structures and governance mechanisms significantly influence firm performance. They mitigate conflicts of interest and reduce agency costs arising from information asymmetry, divergent risk preferences, and limited shareholder or beneficiary participation in decision-making. In many organizations, including pension funds, decision-making authority is vested in managers and trustees, increasing the potential for opportunistic behavior if adequate governance controls are absent.

Eisenhardt (1989) argues that the central concern of the Agency Theory is the design of optimal contracts and monitoring mechanisms that align the interests of principals and agents, taking into account bounded rationality, information asymmetry, and differing risk attitudes. Similarly, Jensen and Meckling (1976) and Maher and Andersson (1999) contend that effective governance structures help harmonize the interests of managers and owners, thereby maximizing organizational value.

Despite its wide application, criticism of the Agency theory has grown with time. Donaldson (1990) and Aguilera *et al.* (2008) argue that the theory's narrow focus on shareholder–manager relationships limits its ability to explain corporate governance practices across diverse institutional and national contexts. Shapiro (2005) further criticizes the theory for prioritizing shareholders while neglecting other stakeholders with legitimate interests in organizational outcomes.

Nonetheless, the theory is relevant to this study as it provides a direct analytical link between corporate governance and pension fund performance. Pension funds are characterized by separation between ownership (contributors and beneficiaries) and control (trustees and fund managers), making them susceptible to agency problems. Fan (2004) asserts that minimizing agency conflicts through sound governance practices enhances accountability, efficiency, and ultimately the financial performance of pension funds. The theory, therefore, offers a robust foundation for examining how governance mechanisms influence the financial performance of occupational pension funds.

3.2 Stakeholder Theory

Stakeholder Theory (SHT) of corporate governance focuses on identifying and managing the various groups that have an interest in, or are affected by, a corporation's activities (Freeman, 1984). The theory posits that, beyond shareholders, a firm's success is closely linked to the interests and expectations of other stakeholders who include employees, customers, suppliers, regulators, and the broader society. Mayer (1996) argues that since firms are accountable to a wider constituency, they should be managed in a manner that serves the public interest rather than solely shareholder wealth maximisation.

The theory further suggests that firm performance should be evaluated based on how well it balances and satisfies the interests of this broader stakeholder group. Preston and Donaldson (1995) observe that stakeholders comprise individuals and groups with diverse interests and values that collectively influence organisational outcomes. Effective management of stakeholder relationships is therefore viewed as a critical contributor to sustainable economic performance. In the context of pension funds, performance is directly linked to the extent to which the genuine interests of all stakeholders, such as contributors, beneficiaries, trustees, fund managers, and regulators, are safeguarded.

Williamson (1985) views the SHT as primarily concerned with how corporate governance practices promote and protect the interests of various stakeholder groups. Similarly, Blair (1995) contends that firms and their managers have a responsibility to balance the interests of both shareholders and non-shareholding stakeholders. In contrast, Friedman (1984) argues that shareholders are the only stakeholders that matter, asserting that the shareholder-centric model provides clearer managerial guidance and a measurable basis for performance evaluation.

Despite its strengths, the SHT has been critiqued by several scholars. Heath and Norman (2004) observe that poor corporate performance may be rationalised by management under the guise of addressing stakeholder concerns. Blair (1995) highlights the practical challenge of reconciling and fulfilling the potentially conflicting objectives of a firm's diverse stakeholder groups.

3.3 Modern Portfolio Theory (MPT)

The Modern Portfolio Theory (MPT) of Markowitz (1952) provides a framework for understanding how investment strategy influences portfolio performance through diversification and risk–return optimization. The theory postulates that investors can construct efficient portfolios that maximize expected returns for a given level of risk, or alternatively, minimize risk for a given level of expected return by combining assets with imperfectly correlated returns.

The MPT is particularly relevant to pension funds, which are long-term institutional investors with fiduciary obligations to balance risk and return in order to meet future benefit obligations. The theory underscores the importance of asset allocation decisions, diversification across asset classes, and strategic investment policies in enhancing portfolio performance while controlling exposure to systematic and unsystematic risk. Systematic risks are those inherent in the capital market, whereas

unsystematic risks are associated with each particular stock as they are company-specific events and risks (Sharpe, 1964; Lintner, 1965).

Within the context of this study, the MPT complements Agency Theory by explaining how governance structures influence investment decision-making and portfolio outcomes. Effective corporate governance ensures that trustees and fund managers adhere to prudent investment strategies consistent with the risk tolerance and long-term objectives of pension fund beneficiaries. Poor governance, on the other hand, may lead to suboptimal asset allocation, excessive risk-taking, or inefficient portfolio diversification, thereby undermining fund performance.

Consequently, the MPT provides a theoretical basis for examining the role of investment strategy as a mediating factor in the relationship between corporate governance and the financial performance of occupational pension funds.

4. Literature Review

4.1 Corporate Governance and Pension Performance

Empirical literature on corporate governance (CG) largely originates from the United States and other OECD countries, where studies consistently show that strong shareholder rights, effective legal systems, and independent boards are associated with higher firm value and improved performance (Gompers *et al.*, 2001; La Porta *et al.*, 2001; Lombardo & Pagano, 1998). Related research further demonstrates a positive relationship between sound CG practices and pension fund performance, particularly through enhanced board independence and oversight (Besley & Prat, 2003; Mitchell & Yang, 2005; Zahra and Pearce (1989),).

Nonetheless, evidence on the CG–performance nexus remains mixed. While some studies report positive effects, others find weak or inconclusive relationships, largely due to methodological differences, measurement challenges, and the presence of mediating or moderating factors such as ownership structure, board characteristics, and institutional context (Renders *et al.*, 2010). Daines and Klausner (2001), Larcker *et al.* (2007), and Coles *et al.* (2008) examined takeover defenses, board characteristics, and board size, respectively, and found inconclusive results. Moreover, CG systems have at times failed to prevent financial crises and corporate collapses, raising questions about their effectiveness in isolation (Clarke, 2009).

Evidence from Emerging Market Economies (EMEs) provides further insights. Klapper and Love (2002) find that in countries with weak shareholder protection and ineffective legal systems, firm-level CG practices play a more critical role in improving financial performance. This pattern is evident in countries such as Brazil, Chile, India, Korea, Malaysia, and South Africa, where strong governance practices are associated with improved financial outcomes. The authors also establish that firm-level governance influences information asymmetry and the quality of contractual relationships.

Empirical studies on CG in Africa, though limited, offer relevant findings. In Nigeria, Ehikioya (2007) reports that ownership concentration positively affects firm

financial performance, arguing that larger shareholdings enhance shareholder monitoring of management. The study further reveals that CEO duality negatively affects performance, while firm size and leverage exert positive effects. In Ghana, Darko (2014) finds that ownership structure, board gender diversity, and audit committee characteristics, such as independence, expertise, and meeting frequency, significantly influence firm market value. Supporting this view, Ruzaidah and Takiah (2004) emphasize the role of audit committees in reducing information asymmetry and strengthening accountability.

In Kenya, empirical studies on CG and pension funds remain at an early stage and are largely indirect. Mutegi (2014) examines CG structures, specifically board composition, board size, and executive compensation, within occupational retirement benefit schemes and finds that these factors significantly influence pension fund financial performance. Similarly, Njuguna (2011) reports a positive relationship among CG practices, pension regulations, leadership quality, and scheme growth. However, these studies do not consider the role of other interacting factors in shaping the CG–performance relationship.

Related Kenyan studies focusing on listed firms and state agencies further demonstrate the relevance of CG. Ongore and Kobonyo (2011) establish a significant relationship between ownership concentration and firm profitability among NSE-listed companies. Miring'u (2011) shows that board composition significantly influences the market value of state corporations, while Lishenga (2012) finds that increased frequency of board meetings enhances firm performance.

Overall, the literature highlights the importance of CG in enhancing organizational and pension performance but reveals significant gaps in the Kenyan context. Specifically, there is limited empirical evidence directly linking CG structures to pension fund performance while accounting for investment strategy and macro-institutional factors, underscoring the need for a more comprehensive, context-specific investigation.

4.2 Corporate Governance, Investment Strategy and Pension Performance

Empirical evidence shows that corporate governance (CG) plays an important role in shaping investment decisions and pension fund performance, though research findings remain mixed. Khanna and Zyla (2012), studying emerging markets, found that investors value firms with strong governance and are willing to pay premium prices for well-governed entities. Their study, nonetheless, did not examine the role of trustees in the investment process. In contrast, Useem and Mitchell (2008) reported no direct relationship between CG and financial performance but demonstrated that governance significantly influences investment strategy, which, in turn, positively affects pension fund financial position, implying an indirect effect of CG on market value.

Evidence from developed markets further highlights this relationship. Manuel and Christian (2016) found a direct but weak link between CG and asset allocation choices among Swiss occupational pension plans, alongside a positive association with market

value. Similarly, Ambachtsheer, Capelle and Scheibelhut (1998) established a positive relationship between governance quality on pension funds undertaking investment opportunities and fund financial performance. In Poland, Jackowicz and Kowalewski (2012) showed that trustee board characteristics, such as board composition, education, and age, significantly influence the market value of defined contribution pension funds, underscoring the importance of sound governance practices.

Studies on investment regulation also suggest that governance and strategy matter. Davis and Hu (2008) attributed the underperformance of Canadian pension funds relative to those in the UK and US to portfolio restrictions, while other studies by Ippolito and Turner (1987) found persistent underperformance of US pension funds relative to market benchmarks, consistent with the Efficient Markets Hypothesis, which asserts that asset's prices fully reflect existing information, hence it is impossible to outperform the market. Overall, the literature is largely concentrated in developed economies and often examines governance, investment strategy, and performance in isolation. The absence of comparable studies in developing countries such as Kenya, coupled with differences in capital market development, motivates this study to examine the combined interaction of governance, investment strategy, and pension fund performance.

4.3 Empirical Evidence on the Joint Effect of CG, Investment Strategy and Macroeconomic Factors on Pension Performance

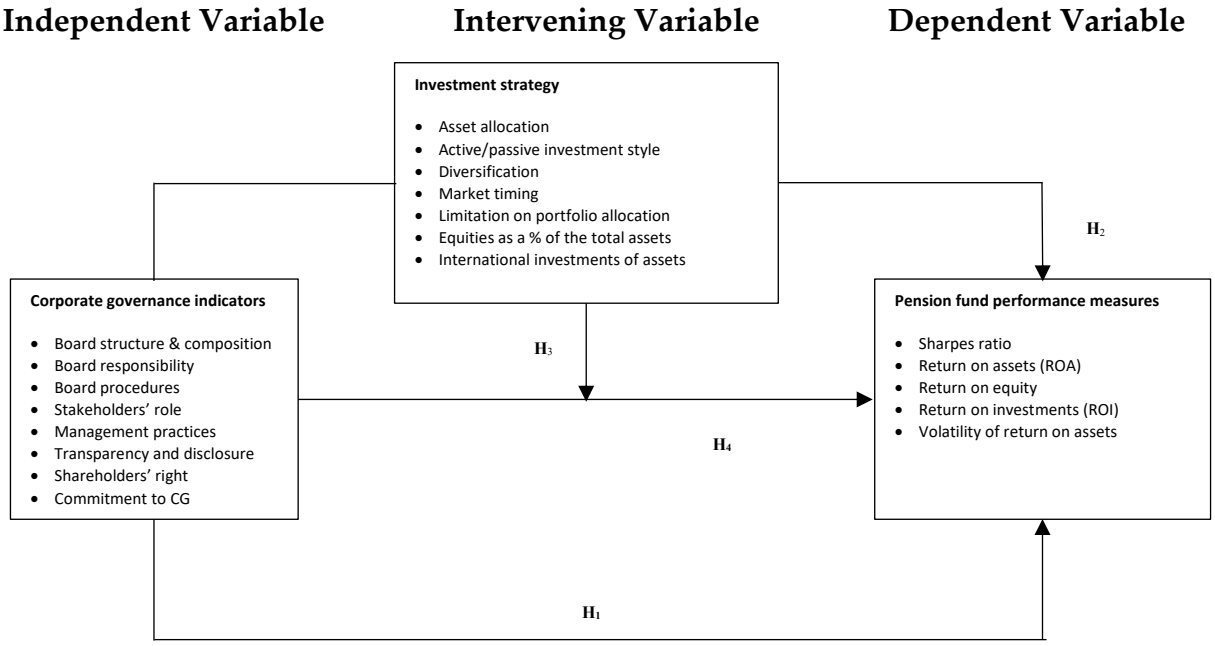
Empirical research examining the joint effects of corporate governance (CG), investment strategy, and macroeconomic factors on pension-fund performance remains limited in both developed and emerging markets. Prior studies often report mixed or contradictory findings, which many authors attribute to analyses that consider only one or two variables at a time, thereby omitting important confounding factors. To address this gap, the present study adopts a multifactor framework that simultaneously models CG, investment strategy, and macroeconomic determinants to assess their combined and interactive effects on the financial performance of occupational pension funds in Kenya. By estimating multivariable and interaction models on panel data, the study aims to provide more robust evidence on how governance and investment choices condition pension outcomes under varying macroeconomic environments.

4.4 Hypotheses

The proposed study tested the following hypotheses in Kenya:

- **H_1:** Good corporate governance is positively associated with pension-fund financial performance.
- **H_2:** Investment strategy significantly influences the performance of pension plans in Kenya
- **H_3:** Investment strategy has a significant intervening influence on the link between governance and market value of occupational pension plans.
- **H_4:** The joint effect of CG and investment strategy has a significant effect on pension fund financial performance.

5. The Conceptual Framework



Source: Author, 2025.

6. Research Methodology

6.1 Research Design

Zikmund (2003) observes that research design refers to the overall plan or blueprint that guides the collection, measurement, and analysis of data in order to address a research problem. Creswell (2008) classifies research designs as either qualitative, quantitative, or mixed methods. Consistent with this classification, the proposed study adopted a mixed-methods research design, combining both qualitative and quantitative approaches to comprehensively examine the research problem.

The qualitative component of the study employed in-depth interviews to assess the influence of corporate governance (CG) structures and investment strategies on the financial position of pension schemes. The approach focused on understanding and describing social phenomena by examining participants' perceptions and reasoning using non-numerical data (Neuman, 2006). The approach was largely descriptive and enabled the researcher to draw inferences about underlying processes and relationship. In-depth interviews were conducted using structured questionnaires, and document reviews were done to collect relevant information from key informants. Data obtained through this method was used to construct both the corporate governance index and the investment strategy index.

In contrast, the quantitative research design used in the study focused on assessing the magnitude and direction of relationships between study variables through statistical analysis (Creswell, 2013). Waters (2017) broadly categorized these designs into descriptive, correlational, quasi-experimental, experimental, and developmental.

Descriptive research is used to characterize the population or phenomenon under study by addressing questions related to who, what, when, where, and how (Cooper & Schindler, 2003). It facilitates the measurement of trends, comparisons across groups, validation of existing conditions, and analysis across different time periods. Correlational research, on the other hand, examines associations between variables without manipulating them (Waters, 2017), while developmental (longitudinal) studies assess changes over time.

Quantitative data entailed pension fund performance indicators. The study thus employed descriptive, correlational, survey and developmental quantitative research designs to assess the link between the market value of pension funds and the explanatory variables CG structures and the investment strategy index.

6.2 Population of the Study

The research population comprised 1306 public and private occupational pension funds registered with the RBA as at 31st December 2022, organised as either individual or umbrella pension schemes (Appendix III and IV). The unit of analysis was each of the individual or umbrella pension funds.

6.3 Sample of the Study

The study used a random sampling method to produce results that can be generalized to the population. Sample size was estimated using Cochran's sample size formula (1963:75):

$$\mathbf{n_0 = Z^2pq/ e^2}$$

Where
n_0 is the sample size;
Z^2 is the critical value of the Normal distribution at $\alpha/2$, for example Z= 1.96 for a confidence level of 95%,
α is 0.05; e is the required accuracy level,
p is the sample fraction with a characteristic, and
N is the entire set of subjects.

The selection of the period of study was informed by the fact that major CG practices were implemented during that time, providing a scope to evaluate the influence of CG, investment strategy, and macroeconomic factors on pension fund financial position.

The sample for the study was obtained from a population of 73 pension schemes registered by the RBA as at 31st December, 2022, comprising 41 individual pension schemes and 32 umbrella pension schemes. The sample data for the study were estimated using Cochran's sample size formula (1963:75) for 61 pension schemes. The size of the sample for the proposed study was estimated using the formula:

$$n_0 = Z^2pq/ e^2$$

Where;
N = 73, the population size,
e = 0.05, margin of error,
∂_p = 0.5, the standard deviation of the population, and
Z = 1.96 at 95% confidence level.

To produce results that can be generalized to the population, the random sampling method was applied. Data for 57 pension schemes were accessed, representing a success rate of 57/61 = 93.443%. The sample yielded 513 observations for the study period 2012-2022. Due to a lack of some data, observations for pension schemes vary from 1 year to a maximum of 9 years. The mean observations were 7.281 for each pension firm, reflecting 80.90% of the total sampled pension schemes' observations and thus yielding a balanced panel data set

6.4 Data Collection

The study utilised both primary and secondary data, comprising time-series and cross-sectional observations covering the period 2012–2022, a phase characterised by significant pension regulatory reforms in the sector. Data were obtained from multiple sources to enhance reliability and validity.

Secondary quantitative data on the monthly value of pension fund assets and investment returns were sourced from individual pension fund records, annual reports, and archival documents. Primary data was collected to construct corporate governance and investment strategy indices. Qualitative data were gathered through structured survey questionnaires administered to pension schemes and subsequently analysed to generate quantitative indices. The Corporate Governance Index, used as a proxy for the effectiveness of governance mechanisms, was developed by incorporating governance structures and practices as inputs, and governance standards drawn from established codes of best practice as outputs. The investment strategy index was derived from survey questionnaires administered to evaluate the implementation of various investment strategies. The survey respondents comprised key stakeholders with direct knowledge of scheme governance and investment activities, including sponsor-appointed and member-elected trustees, corporate trustees, scheme administrators, fund managers, custodians, actuaries, and other relevant officers within the pension schemes.

6.5 Tests for Reliability and Validity

Reliability and validity are fundamental criteria for assessing the quality of research instruments by indicating the extent to which a method or technique consistently and accurately measures the intended phenomenon.

Reliability is defined as "*the degree of consistency with which an instrument measures an attribute*" (Polit & Hungler, 1999, p. 255). Similarly, De Vos (1998) describes reliability as the extent to which the application of a specific research instrument in a different study

yields equivalent results under comparable conditions. Cronbach (1951) further conceptualizes reliability as the degree to which a set of measurement items are closely related as a group, emphasizing internal consistency. Collectively, these definitions highlight the concepts of repeatability and replicability of research findings. Joppe (2000) reinforces this view by arguing that a research instrument is considered reliable if the study findings can be reproduced under similar conditions. In this regard, reliability refers to the consistency or stability of a measurement over time.

In quantitative research, reliability is commonly estimated using Cronbach's Alpha coefficient, which ranges from 0 to 1. An alpha value of zero indicates that the items are not correlated, while values approaching one suggest high internal consistency and that the items are likely measuring the same underlying construct. In this study, the test–retest method was employed to assess the reliability of the corporate governance and investment strategy questionnaires. The instruments were administered to management personnel of selected independent pension funds and re-administered after an interval of one month. The responses obtained at Time 1 and Time 2 were then compared to determine the consistency of the measures over time.

Validity, on the other hand, refers to the extent to which an instrument accurately measures the concept it purports to measure (Wren, 2006). It assesses the truthfulness and meaningfulness of research results and is concerned with the presence or absence of systematic measurement error (Campbell & Stanley, 1963). Systematic error evaluates how well the results align with established theories and other measures of the same construct.

According to Middleton (2017), validity can be classified into four main types: construct validity, content validity, face validity, and criterion validity. Construct validity examines whether the instrument truly measures the theoretical concept it is intended to measure. Content validity assesses whether the instrument adequately represents all relevant aspects of the construct. Face validity refers to the extent to which the instrument appears, on the surface, to measure what it is supposed to measure and whether it seems relevant and appropriate to respondents. Criterion validity evaluates the degree to which the results obtained from the instrument correspond with those from another established measure of the same construct.

6.6 Diagnostic Tests

Model diagnostics assess the goodness of fit of an econometric model and, where necessary, identify appropriate corrective measures. These tests are applied to evaluate model residuals, which serve as indicators of overall model adequacy. The tests are designed to examine the dependence and error structure of a time series or regression model. If a time series is serially uncorrelated, no linear function of lagged variables can explain the behaviour of the current variable.

In this study, model diagnostics focused on testing for multicollinearity, heteroscedasticity and homoscedasticity, which are critical assumptions underpinning classical linear regression models (Schulzer, 1994).

6.7 Data Analysis

The unit of analysis was individual pension funds. Data was analyzed in two stages. First, there was descriptive analysis that entailed computations of frequency distributions, mean scores, standard deviations and coefficient of variation of the pension fund /assets value, and the volatility of gross real return of the pension funds. Secondly, the analysis involved testing for relationships between and among variables to establish their nature and magnitude. This involved multiple regression analyses, Pearson's product-moment and analysis of variance (Baron & Kenny, 1986) for this model:

$$\textbf{Pension Financial Performance} = a + b_1CG + b_2IS + e$$

Where
CG = corporate governance;
IS = investment strategy;
e = error term.

Below are the regression models and the hypotheses tested.

Table 1: Study Hypotheses and Analytical Models

Summary of Analytical Models

Objectives	Hypothesis	Analytical Model	Interpretation	Questionnaire item
1. Determine the influence of corporate governance (CG) on pension performance	HA: corporate governance practices significantly influence the performance of pension plans in Kenya: i. Board structure & composition ii. Management practices iii. Transparency and disclosure iv. Shareholders' right	1. Simple regression analysis, where Pension performance =f (corporate governance) Y= a + bnXn + e Where = Mean score of the Sharpe's ratio/ market value of pension fund a = Intercept/constant bn = regression coefficient (Beta) X= Aggregate mean score of the corporate governance e = error term R = Pearson's product moment correlation	Pearson's product moment correlation coefficient (R) determination - The model establishes that a set of independent variables explains a proportion of the variance in a dependent variable at a significant level (through a significance test of R2). Range = +1 to -1 R= ≥ 0.7 indicates a strong positive relationship. Range = ≤ 0.3 indicates a weak relationship	Model Summary Tables
	H0: bn = 0 HA: bn ≠ 0	2. ANOVA test	A way to find out if survey or experiment results are significant. It entails testing groups to see if there's a difference between them.	The ANOVA Tables
			The F value in one way ANOVA helps you answer the question "Is the variance between the means of two or more independent groups significantly different?" H0: All group means are equal. HA: At least one group mean is different from the rest. The larger the F-statistic, the greater the evidence that there is a difference between the group means. A sufficiently large F-value indicates that the term or model is significant.	
			The F value also determines the P value; The p-value is a probability that measures the evidence against the null hypothesis. Lower probabilities provide stronger evidence against the null hypothesis.	

Objectives	Hypothesis	Analytical Model	Interpretation	Questionnaire item
			If this p-value is less than α = .05, we reject the null hypothesis of the ANOVA and conclude that there is a statistically significant difference between the means of the three groups.	
			Otherwise, if the p-value is not less than α = .05 then we fail to reject the null hypothesis and conclude that we do not have sufficient evidence to say that there is a statistically significant difference between the means of the three groups.	
		3. Coefficient analysis	It shows shared and unique contributions of the independent variables. It also indicates the single strongest predictor in the model.	The Coefficient Tables
2. Determine the influence of Investment Strategy (IS) on pension performance	H_A: IS practices significantly influence the performance of pension plans in Kenya. H0: bn =0 HA: bn≠ 0	1. Simple regression analysis, where Pension performance = f (IS) Y= a + bnXn + e Where Y= Mean score of the Sharpe's ratio a=Intercept/constant bn = regression coefficient (Beta) X= Aggregate mean score of the IS e = error term Pearson's product moment correlation R.	Pearson's product moment correlation coefficient (R) determination - The model establishes that a set of independent variables explains a proportion of the variance in a dependent variable at a significant level (through a significance test of R2). Range = +1 to -1 R= ≥ 0.7 indicates a strong positive relationship. Range = ≤ 0.3 indicates a weak relationship	Model Summary, ANOVA and Coefficient Tables: Investment Strategy of pension funds in annual reports
		2. ANOVA test	H0: All group means are equal.	The ANOVA Tables
			HA: At least one group mean is different from the rest.	
			The larger the F-statistic, the greater the evidence that there is a difference between the group means. A sufficiently large F-value indicates that the term or model is significant.	
			If this p-value is less than α = .05, we reject the null hypothesis of the ANOVA and conclude	

Objectives	Hypothesis	Analytical Model	Interpretation	Questionnaire item
			that there is a statistically significant difference between the means of the three groups.	
			Otherwise, if the p-value is not less than $\alpha = .05$ then we fail to reject the null hypothesis and conclude that we do not have sufficient evidence to say that there is a statistically significant difference between the means of the three groups.	
		3. Coefficient analysis	It shows shared and unique contributions of the independent variables. It also indicates the single strongest predictor in the model.	The Coefficient Tables
3. Establish the mediating effect (Me) of investment Strategy (IS) on the relationship between corporate governance (x) and pension performance (Y)	H2: The investment strategy does not mediate the effect of corporate governance practices on performance of pension plans in Kenya. .	Path analysis/Stepwise regression analysis: a statistical method of testing cause/effect relationships. Step 1: $Y= a_0 + \beta_1 X_1 + \varepsilon$ Step 2: $Me= a_0 + \beta_1 X_1 + \varepsilon$ Step 3: $Y=a_0 + \beta_2 Me + \varepsilon$ Step 4: $Y= a0 + \beta 2Me + \beta 1X1 + \varepsilon$ Where Y= composite score for financial performance a0=regression constant X= composite score for corporate governance Me=mediating factor-composite score for IS 1. Pearson's product moment correlation R	Step 1-3 establishes whether zero order relationship among the variables exists. If one or more of these relations are not significant, then mediation is not possible. But if significant proceed to step 4. Full mediation is supported if corporate governance. is no longer significant when IS/IC is controlled Partial mediation is supported if both corporate governance and IS/IC significantly predict pension performance.	Establish the mediating effect (Me) of investment Strategy (IS) on the relationship between corporate governance (X) and pension performance (Y)
			R2 to asses how much change in financial performance is due to corporate governance and IS or IC If R is > 0.7 there is a positive relationship and below 0.5 there is a weak relationship.	
4. To determine whether the joint effect of corporate governance & IS	The joint effect of	1. $Y = a0 + \beta 1X1 + \beta 1\text{-}pX1\text{-}p.Z1\text{-}p + \beta n\ Men + \varepsilon i$ Where: Y= Sharpe's ratio	H0: b1 = b2…. = bn=0 There is no linear relationship between Y and the set of independent variables	Model Summary, ANOVA and Coefficient Tables: the joint effect of corporate

Objectives	Hypothesis	Analytical Model	Interpretation	Questionnaire item
on pension performance on pension performance is significant.	corporate governance and IS on pension performance in Kenya is significant.	a0 = regression coefficient and intercept β1 = Regression coefficient or change induced in Y by each independent variable X X1=independent variable X1-p=independent variable Z1-p = moderator if the relationship between X and Y is a function of the level of Z Men= mediating variable if the relationship between X and Y is a function of the level of Xnjn εi = error term Pearson's product moment correlation R	HA: At least one of bn ≠ 0 (There is a linear relationship between Y and the set of independent variables) To conduct a t test to determine individual significance of each parameter To conduct an F test (AOV test) to assess overall robustness and significance of the multiple regression model. Reject H0 if p value ≤ a, otherwise fail to reject H0 if p- value is >a If r > 0.7 with a positive b and p<0.05 it indicates corporate governance as a positive and significant effect on pension performance.	governance & IS on pension performance
		2. ANOVA test	H0: All group means are equal. HA: At least one group mean is different from the rest. The larger the F-statistic, the greater the evidence that there is a difference between the group means. A sufficiently large F-value indicates that the term or model is significant. If this p-value is less than α = .05, we reject the null hypothesis of the ANOVA and conclude that there is a statistically significant difference between the means of the three groups. Otherwise, if the p-value is not less than α = .05 then we fail to reject the null hypothesis and conclude that we do not have sufficient evidence to say that there is	The ANOVA Tables

Objectives	Hypothesis	Analytical Model	Interpretation	Questionnaire item
			a statistically significant difference between the means of the three groups.	
		3. Coefficient analysis	It shows shared and unique contributions of the independent variables. It also indicates the single strongest predictor in the model as well as indicates the effect of addition of each independent variable on the models R squared.	The Coefficient Tables

Source: Author's primary analysis, 2023.

6.8 Data Presentation and Analysis

This section presents the descriptive analysis and empirical results of the study. It discusses the statistical properties of the dependent variable: corporate governance practices; the mediating variable, investment strategy; and the outcome variable, pension fund financial performance, measured by the combined return on investment (ROI) of pension funds. In addition, it presents trend analysis, diagnostic tests, and correlation analysis, culminating in a summary of the key findings. The study covers the period from 2012 to 2022, with data obtained from the pension industry in Kenya and national economic indicators.

Appendix I summarizes the descriptive statistics of the combined ROI of pension funds; Investment strategy proxied by IS index; as well as corporate governance indicators proxied by the CG index. The statistics are broken down into measures of central tendency and measures of variability (spread). Measures of central tendency include the mean, median, and mode, while measures of variability include standard deviation, variance, minimum and maximum variables, kurtosis, and skewness.

Table 2: Pension Schemes Combined ROI of Pension Funds Descriptive Statistics

	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis	
Combined ROI of pension funds	46	-1.77	354.29	32.6311	57.02374	4.398	.350	23.013	.688
Valid N (listwise)	7								

Source: Author's primary analysis (2025).

The combined return on investment (ROI) of pension schemes ranged from −1.77 to 354.29, with a mean of 32.63 and a standard deviation of 57.02. These statistics reveal substantial variation in the combined ROI among RBA-registered pension funds. The relatively high mean ROI, together with the observed dispersion, suggests that pension schemes generally generated value for beneficiaries during the study period. Furthermore, the wide spread between the minimum and maximum values indicates considerable heterogeneity and diversity in performance across the sampled pension schemes.

Skewness and kurtosis describe the shape of a variable's distribution and are useful in assessing normality and potential heteroscedasticity. Kurtosis measures the combined weight of a distribution's tails relative to its center and reflects the propensity for extreme values. In a normal distribution, data exhibit a bell-shaped curve with most observations falling within three standard deviations of the mean. However, distributions with high kurtosis have heavier and longer tails, indicating a greater likelihood of extreme outcomes.

The study findings reveal that the combined ROI of pension funds has a skewness value of 4.398, indicating extreme positive skewness. According to Bulmer's (1979) rule

of thumb, skewness values below −1 or above +1 signify highly skewed data. In addition, the kurtosis value of 23.01 exceeds the normal benchmark of 3.0, confirming a leptokurtic distribution that is characterized by a sharp peak and long tails, often resulting from the presence of outliers. Consequently, most observations are clustered around the mean, while a small number of extreme values significantly influence the distribution. Thus, the combined ROI of pension funds is concentrated around the mean but punctuated by occasional extreme outliers. From a financial and investment perspective, such excess kurtosis reflects heightened tail risk, the increased probability of extreme gains or losses driven by rare but impactful events. This characteristic is particularly relevant for pension fund investors and regulators concerned with risk management and financial stability.

Table 3: Board Structure and Composition Descriptive Statistics

Statistic	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
Board structure and composition	57	.04	.96	.5989	.24476	-.518	.316	-.349	.623

Source: Author's primary analysis (2025).

With a mean score of 0.5989 and a maximum of 0.96, BSC generally provides strong overall direction, positively impacting a wide range of pension schemes (Table 3).

On skewness, the distribution is moderately negatively skewed (-0.518). Bulmer (1979) rule of thumb: If skewness is between −1 and ½ or between +½ and +1, the distribution can be called moderately skewed. This suggests that while most pension schemes benefit from slight performance gains, a few may encounter significant losses. According to Bulmer's rule, this level of skewness indicates a tendency towards smaller, frequent gains with some risk of larger losses, highlighting a distribution profile that is not ideal for risk-averse investors.

The kurtosis score shows that the distribution is platykurtic (-0.349), characterized by a flatter peak and thinner tails compared to a normal distribution (kurtosis <3). According to Westfall's (2016) interpretation, this indicates that the variances in performance are generally the result of consistent, modest deviations rather than extreme and infrequent outlier events. In other words, most schemes demonstrate stable performance with few outlier extremes.

The conclusion of the findings is that while the board's influence is largely positive, the statistical distribution highlights that a few schemes experience significantly lower effects of BSC on their performance. Investors may want to consider this variability when assessing the stability and risk associated with different pension schemes.

Table 4: Descriptive Statistics of Board Responsibilities

Statistic	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis	
							Statistic	Std. Error	Statistic	Std. Error
Board Responsibilities	57	1.00	.00	1.00	.6954	.2521	-1.349	.316	1.110	.623

Source: Author's primary analysis (2025).

Table 4 shows that, for central tendency and dispersion, the mean score of 0.695 and a standard deviation of 0.252 suggest that, while there is a general lean toward higher BR scores, the variation between registered pension funds is relatively moderate. However, the full range, from 0.00 to 1.00, indicates heterogeneity, suggesting that at least some funds are at the extreme ends of the spectrum regarding board responsibility effects.

The skewness value of -1.349 indicates that the distribution is highly skewed to the left (negatively skewed). Contrary to the suggestion that this indicates a "relative symmetrical distribution," Bulmer's rule dictates that any value less than -1 or greater than +1 represents a substantial departure from symmetry. In this context, most funds score above the mean, with a long tail of lower-performing funds pulling the average down.

The kurtosis score of 1.11 classifies the distribution as platykurtic since Kurtosis < 3. This distribution has thinner tails and a broader, flatter peak than a normal distribution. The investment implication is that assets with platykurtic distributions are often preferred by risk-averse investors. Because the probability of "extreme outliers" (black swan events) is lower than in leptokurtic distributions. Hence, the investment is perceived to be more predictable, though potentially with less "explosive," returns.

Table 5: Descriptive Statistics of Shareholders´ Rights (SR)

Statistic	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
Shareholder´s Rights (SR)	57	-.78	.56	-.325	.253	1.112	.316	2.742	.623

Source: Author's primary analysis (2025).

Table 5 shows that the SR scores range from -0.78 to 0.56. This narrow, predominantly negative range indicates that Shareholders' Rights are generally poorly observed within the registered pension funds. The mean score of -0.325 confirms that most pension schemes demonstrate poor implementation of these rights.

The distribution shape indicates a skewness of 1.112, suggesting a highly positively skewed distribution. Since this value exceeds the Bulmer (1979) threshold of +1, it signifies that the majority of pension schemes cluster at the lower end of the SR

scale, with only a few outliers performing better. This suggests that while most funds score low, a small number of funds manage to score higher, highlighting a significant disparity.

The positive kurtosis or peakedness of 2.742 (kurtosis < 3) characterizes the distribution as platykurtic. This means the distribution is relatively flat with thinner tails than a normal distribution, suggesting fewer extreme deviations from the mean.

Table 6: Descriptive Statistics of Stakeholders Interests in Board Decisions

Statistic	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis	
							Statistic	Std. Error	Statistic	Std. Error
Stakeholders' interests in Board Decisions (SIBD)	57	1.22	-.22	1.00	.458	.298	-.400	.316	-.622	.623

Source: Author's primary analysis (2025).

Table 6 shows that the SIBD scores range from a minimum of -0.22 to a maximum of 1.00. This indicates variability in how different pension schemes consider SIBD. The mean SIBD score of 0.458 suggests that approximately half of the pension schemes are integrating SIBD into their assessments, while the negative skewness of -0.40 indicates that a significant number of pension schemes are at lower scores, meaning many may not be prioritizing SIBD considerations.

The negative kurtosis of -0.622 suggests a platykurtic distribution, implying a flatter distribution with fewer extreme values, indicating that the scores are more evenly spread around the mean than in a normal distribution. Overall, while some pension schemes are effectively considering SIBD, a substantial number are not, as reflected in the negative skewness and platykurtic nature of the score distribution. This analysis could be useful for policymakers or stakeholders aiming to encourage greater integration of sustainable investment practices in pension schemes.

Table 7: Descriptive Statistics of Investment Strategy Index

Statistic	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic	Skewness		Kurtosis	
							Statistic	Std. Error	Statistic	Std. Error
Investment Strategy Index (IS index)	57	.98	.00	.98	.5016	.2772	-.177	.316	-.496	.623

Source: Author's primary analysis (2025).

The results presented in Table 7 indicate that the minimum value of the IS index was 0.00 which reveals that none of the RBA-registered pension schemes did not adopt any of the measured investment strategies. A score of 0.00 signifies a complete lack of adoption for those specific cases, rather than implying no scheme ignored them.

The IS index mean score of 0.502 suggests that on average, schemes have adopted approximately 50% of the possible investment strategy components aimed at improving the combined return on investment (ROI) of pension funds. The maximum value of 0.98 indicates that the highest-performing scheme has almost fully implemented the identified investment strategies to enhance their combined ROI.

The IS Index exhibited a slight negative skewness of −0.177, indicating that the distribution is approximately symmetric, consistent with Bulmer's (1979) rule of thumb, which classifies distributions with skewness between −0.5 and +0.5 as approximately symmetric, meaning that the number of schemes scoring above the mean is roughly equal to those scoring below it. The kurtosis value of −0.496 suggests a relatively platykurtic distribution (flatter than a normal distribution), suggesting that the scores are spread out across the range rather than being highly concentrated right at the mean.

6.9 Hypotheses Testing and Discussion of the Findings

6.9.1 Path Analysis/stepwise Regression Analysis

This is a statistical method of testing cause/effect relationships and entails four steps:

- Step 1: $Y = a_0 + \beta_1 X_1 + \varepsilon$
- Step 2: $Me = a_0 + \beta_1 X_1 + \varepsilon$
- Step 3: $Y = \_a_0 + \beta_2 Me + \varepsilon$
- Step 4: $Y = a_0 + \beta_2 Me + \beta_1 X_1 + \varepsilon$

Where
Y = composite score for financial performance
a_0 = regression constant
X = composite score for corporate governance indicator
Me = mediating factor composite score for IS
R^2 = Pearson's product-moment correlation R

- **Step one: Testing the effect of CG indicators on the combined ROI of pension funds**

Step 1: $Y = a_0 + \beta_1 X_1 + \varepsilon$

H_1: CG has a significant relationship with the combined ROI of pension funds in Kenya.

Table 8: Model Summary of the Effect of CG on the Combined ROI of Pension Funds in Kenya

Model Summary										
					Change Statistics					
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**R square change**	**F Change**	**df1**	**df2**	**Sig. F change**	**Durbin-Watson**
1	.602a	.362	.271	43.63799	.362	3.977	7	49	.002	1.993
a. Predictors: (Constant), Stakeholders interests in board decisions, Board structure and composition, Commitment to Corporate governance, Shareholders´ Rights, Role of stakeholders, Disclosure and transparency, Board Responsibilities										
b. Dependent Variable: Combined ROI of pension funds										

Source: Author's primary analysis (2025).

Step one of the mediation analysis examined the direct effect of CG on the combined return on investment ROI of pension funds, excluding the mediator—investment strategy (IS Index) from the regression model. The results presented in Table 8 indicate that the coefficient of determination (R^2) for the overall model was 0.362, with an adjusted R^2 of 0.271. This suggests a weak size effect. Srinivasan (2020) observed that values below 0.30 indicate weak effects, while those between 0.30 and 0.50 indicate moderate effects, and values above 0.70 indicate strong effects. This indicates that approximately 36.2% of the variance in the combined ROI can be explained by the regression model, which comprises a linear combination of the CG indicators: Board Structure and Composition, Board Responsibilities, Shareholders' Rights, Disclosure and Transparency, Commitment to Corporate Governance, Role of Stakeholders, and Stakeholders' Interests in Board Decisions. This implies that while these CG factors do influence financial performance, the majority of the variation, approximately 63.8%, is likely driven by other external or internal factors not included in this specific regression.

The Adjusted R^2 of .271 further refines this by accounting for the number of predictors in the model, suggesting that the actual explanatory power of the model is lower than the raw R^2.

Table 9: ANOVAa of the relationship between CG and the combined ROI of pension funds

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	53017.341	7	7573.906	3.977	.002b
	Residual	93309.450	49	1904.274		
	Total	146326.791	56			
a. Dependent Variable: Combined ROI of pension funds						
b. Predictors: (Constant), Stakeholders interests in board decisions, Board structure and composition, Commitment to Corporate governance, Shareholders´ Rights, Role of stakeholders, Disclosure and transparency, Board Responsibilities						

Source: Author's primary analysis (2025).

The ANOVA results shown in Table 9 reveal that the overall regression model is statistically significant, $F(7, 49) = 3.977$, $p < .05$, indicating that the set of independent variables reliably predicts the dependent variable combined ROI of pension funds.

Table 10: Coefficient of the Relationship between Corporate Governance and the Combined ROI of Pension Funds

Coefficients											
		Unstandardized Coefficients		**Standardized Coefficients**			**Correlations**			**Collinearity Statistics**	
Model		**B**	**Std. Error**	**Beta**	**t**	**Sig.**	**Zero-order**	**Partial**	**Part**	**Tolerance**	**VIF**
1	(Constant)	-35.689	22.902		-1.558	.126					
	Board structure and composition	53.518	69.951	.256	.765	.448	.366	.109	.087	.116	8.621
	Board Responsibilities	-66.058	54.893	-.326	-1.203	.235	.245	-.169	-.137	.178	5.631
	Shareholder´s Rights	-15.084	25.867	-.075	-.583	.562	-.170	-.083	-.067	.792	1.263
	Disclosure and transparency	46.419	43.249	.230	1.073	.288	.302	.152	.122	.283	3.538
	Commitment to corporate governance	-9.610	15.185	-.074	-.633	.530	-.133	-.090	-.072	.959	1.043
	Role of stakeholders	95.770	32.643	.421	2.934	.005	.539	.387	.335	.632	1.582
	Stakeholders interests in board decisions	25.162	20.104	.147	1.252	.217	.200	.176	.143	.945	1.058

Source: Author's primary analysis (2025).

Findings from the coefficient estimates in Table 10 show that only the Role of Stakeholders (RS) was a statistically significant predictor ($t = 2.143$, $p < .05$), showing a positive effect on the combined ROI of pension funds. This suggests that effective stakeholder involvement plays a critical role in enhancing pension fund performance. In addition, the results reveal that the other variables were statistically insignificant predictors. Board structure and composition, Disclosure and transparency, and Stakeholders' interests in board decisions had a positive effect but $p > .05$, while Board Responsibilities, Shareholders' Rights, and Commitment to Corporate Governance had a negative effect but $p > .05$. Taking into account the statistical significance levels, the parsimonious predictor model for the combined ROI of pension funds is therefore specified as:

$$\textbf{Combined ROI} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}(\textbf{Role of Stakeholders}) + \boldsymbol{\varepsilon}$$

Where:
β_0 is the constant term,
$\beta_1$represents the coefficient of the Role of Stakeholders, and
ε is the error term.

Based on the regression coefficients, the predictive model, nonetheless, is specified as below:

Combined ROI of Pension Funds = −35.689 + 53.518(BS&C) − 66.058(BR) − 15.084(SR) + 46.419(D&T) − 9.610(CCG) + 95.770(RS) + 25.162(SIBD)

The implication of the ANOVA Table 10 findings, which indicates that the relationship between CG indicators and the combined ROI of pension funds is significant with F (7,49) = 3.977, p <.05, is that it enables one to proceed to step 2.

- **Step two: Testing the Relationship between CG Indicators and Investment Strategy (IS Index)**

Step 2: Me = a_0 + $\beta_1 X_1$ + ε

H_2: Investment strategy has a significant intervening effect on the relationship between governance and financial performance of pension plans.

Table 11: Model Summary

					Change Statistics					
Model	**R**	**R Square**	**Adjusted R-Square**	**Std. Error of the Estimate**	**R-squared change**	**F Change**	**df1**	**df2**	**Sig. F change**	**Durbin-Watson**
1	.955a	.911	.899	5.57871	.911	72.006	7	49	<.001	1.441
a. Predictors: (Constant), Stakeholders' interests in board decisions, Board structure and composition, Commitment to Corporate governance, Shareholders´ Rights, Role of stakeholders, Disclosure and transparency, Board Responsibilities										
b. Dependent Variable: IS Index										

Source: Author's primary analysis (2025).

The results in Table 11 of the second step of the mediation analysis reveal that the model demonstrates a very high predictive power, with an R^2 **of .911**. This indicates that 91.1% of the variation in the Investment Strategy (IS) Index is explained by the CG indicators.

Table 12: ANOVAa of the Relationship between CG Indicators and the Index

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.921	7	.560	71.819	<.001b
	Residual	.382	49	.008		
	Total	4.304	56			
a. Dependent Variable: IS INDEX						
b. Predictors: (Constant), Stakeholders' interests in board decisions, Board structure and composition, Commitment to Corporate governance, Shareholders′ Rights, Role of stakeholders, Disclosure and transparency, Board Responsibilities						

Source: Author's primary analysis (2025).

The results in the ANOVA Table 12 show that the overall model is statistically significant $F(7,49) = 71.819$, $p<.001$), meaning the combination of governance predictors effectively predicts the mediator (IS Index).

Table 13: Coefficients of the IS Index and the CG Indicators Model

		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
Model		**B**	**Std. Error**	**Beta**	**t**	**Sig.**	**Zero-order**	**Partial**	**Part**	**Tolerance**	**VIF**
1	(Constant)	-.181	.046		-3.906	<.001					
	Board structure and composition	.712	.142	.629	5.032	<.001	.944	.584	.214	.116	8.621
	Board Responsibilities	.200	.111	.182	1.802	.078	.884	.249	.077	.178	5.631
	Shareholder´s Rights	.032	.052	.029	.614	.542	.082	.087	.026	.792	1.263
	Disclosure and transparency	.121	.088	.111	1.382	.173	.810	.194	.059	.283	3.538
	Commitment to corporate Governance	-.034	.031	-.047	-1.092	.280	-.007	-.154	-.046	.959	1.043
	Role of stakeholders	.142	.066	.115	2.143	.037	.559	.293	.091	.632	1.582
	Stakeholders' interests in board decisions	-.017	.041	-.018	-.410	.683	-.014	-.059	-.017	.945	1.058

Source: Author's primary analysis (2025).

On individual predictor performance, Table 13 shows that only two of the seven CG indicators significantly influenced the investment strategy, namely: i)Board Structure and Composition (BS&C) showed a significant positive effect ($t = 5.032, p < .001$).; and ii) Role of Stakeholders (RS) showed a significant positive effect ($t = 2.143, p < .05$). The other CG indicators had no significant effect and thus failed the criteria for mediation.

There were the positive but non-significant: Board Responsibilities (p=.078), Shareholders' Rights (p=.542), and Disclosure & Transparency (p=.173); and the negative and non-significant: Commitment to Corporate Governance (p=.280) and Stakeholders' Interests in Board Decisions (p=.683).

Based on the estimated coefficients, the predictive regression model is specified as follows:

IS Index = -0.181 + 0.712(BS&C) + 0.200(BR) + 0.032(SR) + 0.121(D&T) -0.034(CCG) + 0.142(RS) - 0.017(SIBD)

Although the ANOVA results in Table 12 confirm that CG indicators collectively have a significant relationship with the IS Index, the absence of statistically significant effects for Board Responsibilities, Shareholders' Rights, Disclosure and Transparency, Commitment to Corporate Governance, and Stakeholders' Interests in Board Decisions implies that these variables fail to satisfy the mediation criteria. Consequently, these variables do not mediate the relationship between CG and the combined ROI of pension funds. Nonetheless, mediation analysis proceeded to Step Three on the basis of the significant effects of Board Structure and Composition and the Role of Stakeholders on the IS Index.

- **Step Three of Testing the Relationship between the Combined ROI of Pension Funds and Investment Strategy (IS Index)**

Table 14: Model Summary

					Change Statistics					
Model	**R**	**R Square**	**Adjusted R-Square**	**Std. Error of the Estimate**	**R-squared change**	**F Change**	**df1**	**df2**	**Sig. F change**	**Durbin-Watson**
1	.429a	.184	.169	46.59898	.184	12.386	1	55	<.001	2.160
a. Predictors: (Constant), IS Index										
b. Dependent Variable: Combined ROI of pension funds										

Source: Author's primary analysis (2025).

The third step involved expressing the combined ROI of pension funds as a function of the intervening factor, the Investment Strategy (IS) Index. The results presented in Table 14 indicate that the coefficient of determination (R^2) for the overall model was 0.184, with an adjusted R^2 of 0.169. According to Srinivasan (2020), this represents a weak effect size. The author avers that R^2 values below 0.30 indicate a weak effect, whereas those between 0.30 and 0.50 indicate a moderate effect, and those above 0.70 indicate a strong effect on the dependent variable. This means that the IS Index explains 18.4% of the variation in the Combined ROI of pension funds, which is explained by the regression model, representing a linear combination of the IS Index.

Table 15: ANOVA of the Relationship between the Combined ROI of Pension Funds and IS Index

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26,896.217	1	26,896.217	12.386	<.001[b]
	Residual	119,430.574	55	2171.465		
	Total	146,326.791	56			
a. Dependent Variable: Combined ROI of pension funds						
b. Predictors: (Constant), IS Index						

Source: Author's primary analysis (2025).

The F-statistic, which tests the overall significance of the regression model, shows that the model is statistically significant, as evidenced by the F-statistic of 12.386 ($df = 1,55$) and a p-value of < .001. The model, therefore, significantly predicts the combined ROI of pension funds (Table 15).

Table 16: Coefficients of Combined ROI of Pension Funds and IS Index, Predictor Impact

		Unstandardized Coefficients		Standardized Coefficients			Correlations		
Model		B	Std. Error	Beta	T	Sig.	Zero-order	Partial	Part
1	(Constant)	-7.084	12.842		-.553	.583			
	IS Index	79.179	22.455	.429	3.526	<.001	.429	.429	.429
a. Dependent Variable: Combined ROI of pension funds									

Source: Author's primary analysis (2025).

The regression coefficients in Table 16 indicate that the IS Index has a statistically significant effect on the combined ROI of pension funds (t = 3.526, p < 0.001). Thus, the study shows that the IS Index is a significant predictor of the dependent variable. The predictor model taking into account the significance levels is specified as: Combined ROI of pension funds = -7.084+ 79.179IS Index

The Baron and Kenny (1986) causal steps approach, having established significant relationships in Steps 1 through 3, meeting the criteria for mediation, the study proceeded to Step 4 to determine the type of mediation that has occurred.

- **Step Four of Testing the Relationship between the Combined ROI of Pension Funds, Corporate Governance Indicators and Investment Strategy (IS Index)**

Step 4: $\mathbf{Y = a_0 + \beta_2 Me + \beta_1 X_1 + \varepsilon}$

In this final step, the regression of the dependent variable (Y) on both the independent variable (X) and the mediator (M) is performed simultaneously. Observation was then done on the significance of the direct effect (the relationship between X and Y while controlling for M).

Table 17: Model Summary

					Change Statistics				
Model	**R**	**R Square**	**Adjusted R-Square**	**Std. Error of the Estimate**	**R-squared change**	**F Change**	**df1**	**df2**	**Sig. F change**
1	.637a	.405	.306	42.582	.405	4.087	8	48	<.001
a. Predictors: (Constant), IS index, Commitment to Corporate governance, Stakeholders' interests in board decisions, Shareholders′ Rights, Role of stakeholders, Disclosure and transparency, Board Responsibilities, Board structure and composition									
b. Dependent Variable: Combined ROI of pension funds									

Source: Author's primary analysis (2025).

The study results indicate that the coefficient of determination (R^2) for the overall model in step four was 0.405, with an adjusted R^2 of 0.306, signifying a moderate effect size of the model as per Srinivasan (2020) criteria, where values below 0.30 indicate a weak effect, values between 0.30 and 0.50 indicate a moderate effect, and values above 0.70 indicate a strong effect (Table 17). This implies that 30.6% of the variation in the combined ROI of pension funds is explained by the regression model, which is a linear combination of CG indicators and the IS Index.

Table 18: ANOVA of the Relationship between the Combined ROI of Pension Funds, CG Indicators and Investment Strategy (IS Index)

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	59,291.006	8	7,411.376	4.087	<.001b
	Residual	87,035.785	48	1,813.246		
	Total	146,326.791	56			
a. Predictors: (Constant), IS INDEX, Commitment to Corporate governance, Stakeholders interests in board decisions, Shareholders′ Rights, Role of stakeholders, Disclosure and transparency, Board Responsibilities, Board structure and composition						
b. Dependent Variable: Combined ROI of pension funds						

Source: Author's primary analysis (2025).

The ANOVA results (Table 18) show that the overall regression model is statistically significant ($F(8,48) = 4.087, p < .001$), meaning the predictors collectively have a significant impact on the dependent variable. Consequently, the model significantly predicts the combined ROI of pension funds.

Table 19: Coefficients of the Combined ROI of Pension Funds, CG Indicators and Investment Strategy (IS Index), the Predictor Impact

Coefficientsa

		Unstandardized Coefficients		Standardized Coefficients			Correlations		
Model		**B**	**Std. Error**	**Beta**	**T**	**Sig.**	**Zero-order**	**Partial**	**Part**
1	(Constant)	-12.490	25.593		-.488	.628			
	Board structure and composition	-37.750	84.064	-.181	-.449	.655	.366	-.065	-.050
	Board Responsibilities	-91.704	55.311	-.452	-1.658	.104	.245	-.233	-.185
	Shareholder´s Rights	-19.205	25.338	-.095	-.758	.452	-.170	-.109	-.084
	Commitment to Corporate governance	-5.311	14.996	-.041	-.354	.725	-.133	-.051	-.039
	Role of Stakeholders	77.630	33.312	.341	2.330	.024	.539	.319	.259
	Stakeholders' interests in board Decisions	27.301	19.652	.159	1.389	.171	.200	.197	.155
	IS INDEX	128.119	68.878	.695	1.860	.069	.429	.259	.207
a. Dependent Variable: Combined ROI of pension funds									

Source: Author's primary analysis (2025).

Table 19 presents the regression coefficients of the model, indicating the impact of individual predictors. The findings reveal that only the Role of Stakeholders demonstrated a significant positive effect on the Combined ROI ($t = 2.330, p < .05$). However, all other CG indicators and the IS Index were found to be non-significant predictors of Combined ROI in this specific model. The predictor model taking into account the significance levels is as specified below:

Combined ROI of pension funds = -12.490 - 37.750 BS&C- 91.704BR - 19.205 SR + 30.918 D&T - 5.311 CCG + 7 7.630 RS + 27.301SIBD + 128.119 IS

7. Discussion of the Findings

7.1 The Relationship between Corporate Governance and Combined Return of Pension Funds

This study examined the relationship between corporate governance and the combined return on investment (ROI) of pension funds registered by the Retirement Benefits Authority (RBA). The findings reveal mixed evidence regarding the performance effects of individual corporate governance indicators. Among the variables analyzed, the Role of Stakeholders (RS**)** was the only governance indicator that exhibited a positive and

statistically significant effect on pension fund performance ($t = 2.934$, $p < .05$). This result suggests that pension funds that actively recognize and integrate stakeholder interests achieve superior financial outcomes.

The significant influence of stakeholder governance supports stakeholder theory, which posits that organizational performance improves when firms balance the interests of multiple constituencies, including beneficiaries, employees, regulators, and the wider community (Frémond, 2000). The finding also aligns with the G20/OECD Principles of Corporate Governance (2015), which emphasize the importance of stakeholder participation in promoting sustainable value creation. From an Agency Theory perspective, stakeholder-oriented governance mechanisms may reduce agency conflicts by aligning managerial actions with the long-term interests of pension beneficiaries, thereby enhancing fund performance.

In contrast, Board Structure and Composition, Disclosure and Transparency, and Stakeholders' Interests in Board Decisions displayed positive but statistically insignificant relationships with combined ROI. Although these mechanisms are theoretically expected to strengthen oversight and accountability, the results suggest that their effectiveness depends on the quality of implementation rather than formal adoption. Weak enforcement, limited board independence, or compliance-oriented governance practices may reduce their impact on financial performance.

The board of directors is central to CG with responsibility for strategic oversight, risk management, and accountability. However, empirical research has frequently reported inconclusive evidence on the performance effects of board characteristics, particularly in emerging markets. Prior studies have shown that boards may become aligned with management, thereby weakening their monitoring role and limiting their ability to enhance firm performance, reducing their effectiveness as monitoring mechanisms (Mehran, 1995; Conyon & Leech, 1993).

Similarly, Disclosure and Transparency, despite being fundamental to informed decision-making and market discipline, did not exert a significant influence on pension fund returns. This finding suggests that disclosure practices among RBA-registered pension funds may not be sufficiently timely, comprehensive, or credible to affect investment outcomes. Weak disclosure regimes have been shown to undermine market confidence and reduce the effectiveness of governance mechanisms (OECD, 2015).

The study further found that Board Responsibilities, Shareholders' Rights, and Commitment to CG were negatively but insignificantly associated with combined ROI. While these results do not support a direct performance effect, the negative signs may indicate shortcomings in compliance or enforcement of governance frameworks. This outcome highlights the gap between governance principles and their practical application. The findings partially support the existing empirical literature, which documents mixed, sometimes inconclusive relationships between CG mechanisms and firm performance. Such studies with mixed findings include those conducted in Italy (Melis, 2000; Allegrini & Greco, 2011; Zona, 2014) and Kenya (Ongore & K'Obonyo, 2011).

Overall, the results align with prior empirical evidence showing that the relationship between CG and performance is context-dependent**.** The findings underscore the importance of stakeholder-oriented governance as a key driver of pension fund performance in Kenya, while suggesting that the effectiveness of CG mechanisms depends not only on their design but also on institutional quality, regulatory enforcement, and organizational context. The study suggests that policymakers and regulators should strengthen the enforcement of CG standards and promote stakeholder engagement to enhance the financial sustainability of pension funds in Kenya.

7.2 The Relationship between Investment Strategy and Combined Return of Pension Funds

The second objective of the study was to establish whether investment strategy (IS) mediates the relationship between CG and the combined ROI of RBA-registered pension funds. The hypothesis tested was that IS has a significant intervening effect on the governance–performance relationship. The investment strategy was measured using an IS Index derived from a questionnaire administered to pension fund management. Mediation was assessed using path analysis through stepwise regression following the four-step causal approach, and all relations tested in steps 1-3 were found to be significant, allowing the analysis to proceed to step four, where the full model was tested.

In Step 1, CG indicators were regressed on the combined ROI. The results show that CG partly explains pension fund performance. Specifically, the Role of stakeholders had a positive and statistically significant effect on the combined ROI. Board structure and composition, disclosure and transparency, and stakeholders' interests in board decisions exhibited positive but statistically insignificant effects, implying marginal improvements in returns with enhanced governance practices. In contrast, board responsibilities, shareholders' rights, and commitment to corporate governance showed negative but insignificant effects, suggesting weak or inconsistent implementation of these governance mechanisms. These findings are consistent with the G20/OECD Principles of CG, which emphasize stakeholder inclusion, accountability, and transparency as foundations for sustainable performance.

The results align with prior empirical evidence. Rais (2009) and Ontita and Kinyua (2020) similarly found that effective stakeholder management enhances organizational performance. However, the mixed effects of board-related governance variables are consistent with Balagobei (2018), who reported that some board characteristics significantly affect firm performance while others are insignificant or negatively related.

Step 2 examined the effect of CG on the mediating variable. The findings show that board structure and composition and the role of stakeholders had positive and statistically significant effects on the IS Index, while other governance indicators had positive but insignificant effects. This suggests that governance mechanisms influence the formulation and quality of investment strategies. These findings are consistent with Khanna and Zyla (2012), who established that governance plays an important role in

investment decision-making, and with Useem and Mitchell (2008), who argued that governance affects performance indirectly through investment strategy.

In Step 3, the IS Index was regressed on combined ROI and established that the IS Index has a positive and statistically significant effect on the combined ROI of the pension funds, implying that enhanced application of various investment strategies increased returns This result supports earlier studies by Blake *et al.* (1999), Coggin *et al.* (1993), and Grinblatt and Titman (1989), which demonstrate that asset allocation explains a substantial proportion of pension fund return variability, although evidence on market timing remains mixed.

Step 4 assessed the full mediation model by regressing the combined ROI on both corporate governance indicators and the IS Index. The findings revealed that the combined effect of the CG indicators and the IS Index variable accounted for 40.5% of the variation in the combined ROI ($R^2 = .405$, Adjusted $R^2 = .306$), indicating a moderate explanatory power. The overall regression model was statistically significant ($F(8,48) = 4.087$, $p < .001$). The role of stakeholders remained positively significant, while investment strategy and other governance indicators showed positive but statistically insignificant effects. These results confirm partial mediation, implying that CG affects pension fund performance both directly and indirectly through investment strategy.

The study concluded that the hypothesis of a significant intervening effect of investment strategy was supported. CG influences financial performance indirectly through its impact on the development and implementation of investment strategies. The results align with those of Fama (1978), Efni (2017), Soumaya (2015) and Susanti *et al.* (2019) and the G20/OECD Principles of CG, highlighting the importance of governance in fostering accountability in investment decision-making processes and ultimately improving performance.

8. Conclusion

This study examined the effect of corporate governance and investment strategy on the financial performance of pension funds registered by the Retirement Benefits Authority (RBA), with performance measured using combined return on investment (ROI). Corporate governance was operationalized through indicators including board structure and composition, board responsibilities, shareholders' rights, disclosure and transparency, commitment to corporate governance, role of stakeholders, and stakeholders' interests in board decisions. The investment strategy was examined as a mediating variable.

The first objective assessed the relationship between CG and pension fund performance. The findings led to the rejection of the null hypothesis, confirming that CG has a significant effect on combined ROI. However, among the individual governance indicators, only the role of stakeholders demonstrated a statistically significant positive influence on pension fund performance. This result supports Stakeholder Theory (Freeman, 1984), which posits that organizational success depends on creating value for

a broad range of stakeholders. It implies that pension funds perform better when stakeholder considerations are meaningfully incorporated into governance and decision-making processes.

Other governance indicators, including board structure and composition, disclosure and transparency, and stakeholders' interests in board decisions, exhibited positive but statistically insignificant effects on performance. These findings are consistent with Agency Theory (Jensen & Meckling, 1976), which emphasizes governance mechanisms as tools for reducing agency costs, even when their direct impact on financial outcomes is limited. Conversely, board responsibilities, shareholders' rights, and commitment to CG showed negative but insignificant effects on combined ROI, suggesting weak enforcement or non-adherence to governance frameworks within the sampled pension funds.

The second objective investigated the mediating role of investment strategy in the relationship between CG and pension fund performance. The results confirmed a significant mediating effect, leading to the rejection of the null hypothesis. CG was found to influence pension fund performance indirectly through investment strategy, in line with Modern Portfolio Theory (MPT). Specifically, board structure and composition had a positive and significant effect on the investment strategy index, while the investment strategy index itself had a positive and significant effect on combined ROI. These findings highlight the central role of investment strategy as the transmission mechanism through which governance structures translate into financial performance. The study further emphasizes the importance of understanding risk in pension fund management. Both systematic and unsystematic risks were shown to be relevant, with unsystematic risks being reducible through diversification and sound investment strategies. This underscores the need for pension funds to adopt well-designed investment strategies that align with their risk–return objectives.

Finally, the study assessed the joint effect of CG and investment strategy on pension fund performance. The results confirmed that the joint effect is positive and statistically significant, with strong explanatory power. While individual contributions of CG indicators varied, the overall findings support Agency Theory, Stakeholder Theory and Modern Portfolio Theory.

In conclusion, pension fund performance is best enhanced through an integrated approach that combines effective corporate governance and robust investment strategies. Pension fund managers should strengthen stakeholder-oriented governance practices and systematically improve board oversight of investment decisions to achieve sustainable improvements in financial performance.

8.1 Implications of the Study Findings: Contribution to Theory and Knowledge

This study contributes to theory, empirical knowledge, and policy by examining the effects of corporate governance and investment strategy on the financial performance of pension funds registered by the Retirement Benefits Authority (RBA) in Kenya. By situating the analysis within a developing country context, the study extends existing

finance and governance literature and provides evidence relevant to pension fund managers, regulators, and policymakers in emerging markets.

The findings demonstrate that corporate governance and investment strategy jointly and significantly influence the combined return on investment (ROI) of pension funds. This integrated evidence advances understanding of pension fund performance in emerging markets, where institutional quality, investment strategy application, and governance practices differ markedly from those in developed economies. The study therefore enhances the explanatory and predictive power of existing theories by specifying critical bounding assumptions applicable to developing countries.

A key theoretical contribution is the confirmation and extension of the Agency Theory, Stakeholder Theory and the Modern Portfolio Theory (MPT). The results show that these theories are complementary in explaining pension fund performance when governance mechanisms and investment behavior are considered simultaneously.

Empirically, corporate governance was found to have a statistically significant effect on pension fund performance, though the impact of individual governance indicators varied. Stakeholder involvement had a positive, significant effect on combined ROI, underscoring the importance of inclusive governance structures. Other governance indicators showed mixed and largely insignificant effects, suggesting that partial or ineffective implementation of governance frameworks may limit performance gains. These findings are consistent with Agency and Stakeholder theories, which emphasize monitoring, accountability, and alignment of interests.

The study further establishes the mediating role of investment strategy in the relationship between corporate governance and pension fund performance. Corporate governance was found to positively and significantly predict the Investment Strategy (IS) Index, implying that well-governed pension funds are more likely to adopt prudent investment strategies. This result supports the Modern Portfolio Theory, which emphasizes diversification and optimal asset allocation in enhancing returns.

Overall, the study provides robust theoretical and empirical support for an integrated framework linking corporate governance and investment strategy to pension fund performance. The findings inform governance reforms, investment decision-making, and regulatory policies to improve the sustainability and performance of pension funds in developing economies.

Conflict of Interest Statement
The authors declare no conflicts of interest.

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