

**EFFECT OF INVESTMENT DECISIONS ON FINANCIAL
PERFORMANCE OF UNIT TRUSTS IN KENYA**

MERITTA AKINYI MAUNDA

**A RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD
OF THE DEGREE OF MASTER OF SCIENCE IN FINANCE,
FACULTY OF BUSINESS AND MANAGEMENT SCIENCES,
UNIVERSITY OF NAIROBI**

NOVEMBER, 2022

DECLARATION

I, the undersigned, declare that this is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

Signed: ~~MEM~~

Date: 15/11/2022

MERITTA AKINYI MAUNDA

D63/77476/2015

This research project has been submitted for examination with my approval as the University Supervisor.

Signed: __

__Date: 15/11/2022

DR. HERICK ONDIGO

DEPARTMENT OF FINANCE AND ACCOUNTING

UNIVERSITY OF NAIROBI

ACKNOWLEDGMENT

I am grateful to God for His mercies and provisions during the period of preparing this project. My sincere gratitude goes out to my supervisor, Dr. Herick Ondigo, for the patience he has exercised in guiding me through this project. My special thanks also go to all the lecturers who taught me in this MSc programme. I also thank the library staff for giving me access to the resources I needed to complete this project. Under their mentorship I have acquired a love for research and the discipline to submit work on time.

DEDICATION

This research project is dedicated to my family for their support and push to complete it. Special mention to my parents, Eng. Jacob and Rose Maunda, my loving husband, Edwin Otieno, my supportive siblings Beryl, Chris and Gordon Maunda and lastly my beautiful children Delany, Samson, Rose and Marlene Otieno.

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGMENT	iii
DEDICATION	iv
LIST OF TABLES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	x
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study.....	1
1.1.1 Investment Decisions.....	2
1.1.2 Financial Performance	3
1.1.3 Investment Decisions and Financial Performance.....	5
1.1.4 Unit Trusts in Kenya.....	6
1.2 Research Problem	7
1.3 Research Objective	9
1.4 Value of the Study.....	9
CHAPTER TWO: LITERATURE REVIEW	11
2.1 Introduction.....	11
2.2 Theoretical Framework	11
2.2.1 Modern Portfolio Theory.....	11
2.2.2 Arbitrage Portfolio Theory	12
2.2.3 Capital Asset Pricing Model	13
2.3 Determinants of Financial Performance	15
2.3.1 Investment Decisions.....	15
2.3.2 Firm Liquidity.....	16
2.3.3 Fund Size	16
2.4 Empirical Review.....	17

2.4.1 Global Studies.....	17
2.4.2 Local Studies	19
2.5 Conceptual Framework	22
2.6 Summary of the Literature Review	22
CHAPTER THREE: RESEARCH METHODOLOGY	24
3.1 Introduction	24
3.2 Research Design.....	24
3.3 Population	24
3.4 Data Collection	24
3.5 Data Analysis	25
3.5.1 Diagnostic Tests.....	25
3.5.2 Analytical Model	26
3.5.3 Tests of Significance.....	27
CHAPTER FOUR: DATA ANALYSIS RESULTS AND FINDINGS	28
4.1 Introduction	28
4.2 Descriptive Statistics.....	28
4.3 Diagnostic Tests	29
4.3.2 Multicollinearity Test.....	30
4.3.3 Heteroskedasticity Test.....	30
4.3.4 Autocorrelation Test.....	31
4.3.5 Stationarity Test	32
4.3.6 Hausman Test.....	32
4.4 Correlation Results.....	33
4.5 Regression Results	34
4.6 Discussion of Research Findings	35
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	38

5.1 Introduction.....	38
5.2 Summary of Findings.....	38
5.3 Conclusions.....	39
5.4 Recommendations for Policy and Practice	40
5.5 Limitations of the Study.....	41
5.6 Suggestions for Further Research	42
REFERENCES.....	44
APPENDICES	48
Appendix I: Research Data	48

LIST OF TABLES

Table 3.1: Diagnostic Tests.....	25
Table 4.1: Descriptive Results	28
Table 4.2: Test for Normality	29
Table 4.3: Multicollinearity	30
Table 4.4: Heteroskedasticity Results.....	31
Table 4.5: Test of Autocorrelation.....	31
Table 4.6: Levin-Lin Chu unit-root test.....	32
Table 4.7: Hausman Test Results.....	33
Table 4.8: Correlation Results	33
Table 4.9: Regression Results.....	35

LIST OF ABBREVIATIONS

ADF	Augmented Dickey Fuller
ANOVA	Analysis of Variance
APT	Arbitrage Pricing Theory
CAPM	Capital Asset Pricing Model
CEO	Chief Executive Officer
CMA	Capital Markets Authority
DT-SACCO	Deposit Taking Saving and Credit Cooperative
MPT	Modern Portfolio Theory
NSE	Nairobi Securities Exchange
OECD	Organization for Economic Cooperation and Development
ROA	Return on Assets
ROI	Return on Investments
UK	United Kingdom
VIF	Variance Inflation Factors

ABSTRACT

Prudent investment portfolio management ensures effectiveness, liquidity and safety within the use of resources among different objectives. The principal reason of holding diversified portfolio rather than a single investment is to maximize return while minimizing risk. Investment diversification is important in that it reduces the level of systematic risk incidental to a portfolio. At every decision purpose, the portfolio manager has a list of investment opportunities at hand and may decide whether to require a foothold supported market conditions and additionally the assessment of determinants. Prudent investment decisions results in enhanced return on investments. The main aim of this research was to establish investment decisions effect on performance of unit trusts in Kenya. The independent variables for the research were investment in shares, investment in fixed deposits, investment in real estate and investment in government securities while the control variables were fund size and fund liquidity. The dependent variable was financial performance measured using return on investments. The study was anchored on modern portfolio theory and supported by arbitrage pricing theory and the capital asset pricing model. Descriptive research design was utilized in this research. The 24 unit trusts in Kenya as at December 2021 served as target population. The study collected secondary data for five years (2017-2021) on an annual basis from CMA and individual unit trusts' annual reports. Descriptive, correlation as well as regression analysis were undertaken and outcomes offered in tables followed by pertinent interpretation and discussion. The research discovered a 0.2571 R square value implying that 25.71% of changes in unit trusts' performance can be described by the six variables chosen for this research. The multivariate regression analysis further revealed that individually, investment in shares and investment in fixed deposits have no significant effect on performance of unit trusts in Kenya. However, investment in real estate produced positive and significant values for this study ($\beta=0.093$, $p=0.001$). Investment in government securities displayed a positive and significant performance influence as shown by ($\beta=0.044$, $p=0.008$). Both fund liquidity and size have a positive effect on performance of unit trusts as shown by ($\beta=0.043$, $p=0.029$) and ($\beta=0.114$, $p=0.001$) correspondingly. The study recommends that unit trusts should enhance their investment in real estate as this will contribute significantly in their financial performance. Further, the study recommends the need for unit trusts to increase their investment in government securities as they affect return on investment in a positive way. Future research ought to focus on other determinants of financial performance among unit trusts in Kenya.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Investment decisions are one of the key decisions for management of any organization. According to Quaicoe and Eleke-Aboagye (2021), the principal reason of holding diversified portfolio rather than a single investment is to maximize return while minimizing risk. Rehan, Alvi, Javed and Saleem (2021) pointed out that investment diversification is important in that it reduces the level of systematic risk incidental to a portfolio. The investment manager has a list of investment opportunities and has to make a decision on the opportunities to focus on to maximize financial performance (Osewe, 2020). Ogum and Jagongo (2022) argue that investment decision affects financial performance of firms positively and significantly.

The study was anchored on Modern Portfolio Theory (MPT) and supported by Arbitrage Pricing Theory (APT) and the Capital Asset Pricing Model (CAPM), all of which support the analysis of investment decisions and unit trust financial performance. According to MPT, investors seek higher returns over lesser returns and are also risk averse. The theory explains the link between investment decisions and financial performance (Markowitz, 1952). According to the APT by Ross (1976), both fundamental and statistical factors influence market returns. The return of a specific asset is a linear function of factors in the economic environment that affect all securities. CAPM by Sharpe (1964) forecasts a security's expected rate of return based on statistics about the market's expected rate of return and also takes into account the market risk and systematic risk.

The study attention was on unit trusts and the choice arise from the fact that the financial sector and specifically unit trusts are gaining importance as investment vehicles and this is evidenced by their increase in number from 0 in 2001 to 24 in 2021 (CMA, 2021). Financial performance for most unit trusts has been on the rise in the last 10 years while at the same time the number of unit trusts have been on the rise. However, there have been periods where performance either experienced significant fluctuations or deepened. It was therefore imperative to carry a study on the role of investment decisions on financial performance of unit trusts.

1.1.1 Investment Decisions

Investment decisions can be described as the determination of how, when, where and how much capital can be spent in line with the aim of making a profit (Virlics, 2013). On the other hand, Brown and Reilly (2021) defined investment as the commitment of finances for certain duration of time so as to derive future payments that will remunerate the investor for the period the resources are committed. Investment decisions can also be simply defined the process of cash outlay in expectation of future cash inflows (Steve & Chris, 2016). It refers to the determination made by an individual as to how, when, where and how much capital is to be spent on available opportunities including determining the costs and returns for each option (Asetto, 2014).

Poor investment decisions are the root cause of individuals and firms not achieving their objectives (Kong, Xiao & Liu, 2020). An investment firms that gets it right in terms of the right investment mix is likely to record a rise in its financial performance (Alslehat & Altahtamouni, 2014). The choice to invest funds is part of the important drivers of an organization's performance. Sound investments that apply well planned

strategies are essential to the creation of value to the investors, and ought be scrutinized in an appropriate framework as well as good logical methodology (Tewolde, 2018).

Empirical studies have tended to adopt different measures of investment decisions. According to Gathogo (2020), investment decisions can be measured as a percentage of the funds invested in each of the various asset classes to total investments. Strategic and tactical asset allocation are the two main asset allocation techniques. Strategic asset allocation entails determining allocation targets for each portfolio component based on each asset class's predicted returns, volatility, and correlation. Tactical asset allocation entails actively altering portfolio weights based on short and medium term economic and market-cycle expectations. The other major proxies used to measure investment include, the investment in real estate, investment in shares, government securities, corporate bonds and banks fixed deposits (Kong et al., 2020). The current study measured investment decision using the proportions of investments in real estate, government securities, fixed deposit and shares.

1.1.2 Financial Performance

Financial performance, according to Almajali, Alamro, and Al-Soub (2012), is the ability of a corporation to attain a variety of financial goals, like profitability. Financial performance refers to the extent to which a firm financial benchmark have been met or exceeded. It demonstrates the extent to which financial objectives are met. As per Baba and Nasieku (2016) financial performance depicts how a corporation generates money through using assets, and as a result, it aids decision making for stakeholders. As per Nzuve (2016), a firm's health is mostly determined by its financial performance that is an indication of a firm's strengths and

shortcomings. Furthermore, for regulatory purposes, the government and regulatory agencies are concerned in how corporations perform.

Financial performance is critical since it is used to show an organization's resource efficiency and effectiveness. This, in turn, has the potential to raise an organization's worth (Gartenberg, Prat & Serafeim, 2021). Financial performance data is also used by investment analysts to assess an entity's ability to generate revenue and expand, both of which are important for future growth. Financial performance is critical in determining net income and analysing a company's financial risk. As a result, the nature of a pension fund's real estate investment can have a substantial impact on its members' overall financial wellbeing during their retirement years. As a result, unit trusts must make numerous estimates in order to determine their overall financial performance, including forecasting future salary increments for covered employees, determining the actuarial rate to be used in determining the amount of pension payments, and calculating the return on assets accumulated in the pension fund (Batchimeg, 2017).

According to Kigen (2016), a variety of financial ratios can be used to assess the financial performance of unit trusts. Financial ratios are defined as the relationship between two financial balances or calculations. Return on assets and return on investments are two critical financial indicators that can be used to evaluate the financial effectiveness of unit trusts. Return on assets (ROA) is the operational profit quotient and total asset ratio used to calculate an organization's earnings from all financial resources (Almajali et al., 2012). Return on investment (ROI), on the other hand, is a statistic that indicates how well management has investment the available funds. The current study used ROI as a measure of financial performance.

1.1.3 Investment Decisions and Financial Performance

The ability of unit trusts to earn adequate revenues to meet their costs and benefit commitments in the medium and long term is reflected in their financial performance. This can be aided by associated sectoral reforms (Wang, Zhang, Ahmed & Shah, 2022). Over the last few decades, the financial performance of unit trusts has received a lot of attention in many jurisdictions, particularly among policymakers. This has been ascribed to the fact that unit trusts are a worldwide concern since people in both the formal and informal sectors around the world will retire or leave employment at some point in their life (Wang et al., 2022).

According Nassar (2018), in order to achieve efficient financial performance, unit trusts must always be professionally managed and operate in a controlled framework. Professional management services are always offered at a cost, which has a detrimental influence on unit trusts' overall financial performance. Members' contributions are the most important source of income for the unit trusts and this should be complemented by investment income. Better investment returns from unit trusts can help organizations attract and keep senior personnel, according to a study conducted in the United Kingdom (UK). Furthermore, strategic asset allocation is a hot topic among unit trusts around the world as high or low returns are a result of investment choices made by the funds' managers.

Hlavac (2016) examined the financial returns of Czech private unit trusts and compared them to those of other Central and Eastern European countries. From the study, financial returns of these schemes were shown to be primarily influenced by member contributions and operating costs incurred for provision of management services. According to studies conducted throughout the world, operational costs,

amount of financial contributions, and other elements that impact the financial performance of unit trusts are primarily internal and, more significantly, trustee-related. Various scholars have noted external factors such as fund managers' investment choices, risk preferences associated with those choices, and the legal environment in which unit trusts operate (OECD, 2016).

1.1.4 Unit Trusts in Kenya

Unit trusts refers to a type of investment that collects funds from numerous individuals and puts the money in different investments aiming to attain low risk by diversifying and minimum average cost per member. Collectively, the funds are invested in an assets portfolio for example money market instruments, bonds, shares among other approved securities so as to attain the groups of investors' objectives and needs. Unit trusts funds in Kenya are regulated by the Capital Markets Authority (CMA). As per the 2021 CMA report, the Kenyan popularity and acceptance of unit trusts is now growing virtually from zero in 2001 to 24 according to licensed unit trusts by September 2021. Unit trusts can be viewed as the small investors answer for achieving investment diversification and it seems to be working well in the country (CMA, 2021).

To protect investors, the CMA requires fund managers to adhere to investing guidelines that define the allowable asset classes with the maximum percentage exposure for each. As a result, the rules provide an overview of the risk profiles associated with the major asset classes in which unit trust managers invest. Oversight of the unit trusts has shifted away from compliance based towards risk based supervision in recent years. To this end, CMA provides asset class suggestions rather than recommending specific assets for investment. In selecting and developing a well-

diversified portfolio, the unit trust system has the discretion to identify and select the most appropriate assets to maximize the fund's returns (Ngugi, Njuguna & Wambalaba, 2018).

The Kenyan investment sector has grown at an exponential rate in recent years, according to Deloitte (2016), and this trend is expected to continue. Unit trusts are increasingly investing in real estate due to the promise of higher returns. As investor confidence has grown, Kenya has seen and experienced a surge in real estate investments. The primary motive for unit trusts to invest in real estate is diversification with the goal of increasing their return on investment (Kigen, 2016). The current study intends to investigate how the investment decisions by unit trusts influences their financial performance.

1.2 Research Problem

Prudent investment portfolio management ensures effectiveness, liquidity and safety within the use of resources among different objectives. According to Quicoe and Eleke-Aboagye (2021), the principal reason of holding diversified portfolio rather than a single investment is to maximize return while minimizing risk. Rehan, Alvi, Javed and Saleem (2021) pointed out that investment diversification is important in that it reduces the level of systematic risk incidental to a portfolio. At every decision purpose, the portfolio manager has a list of investment opportunities at hand and may decide whether to require a foothold supported market conditions and additionally the assessment of determinants (Osewe, 2020). Prudent investment decisions results in enhanced return on investments (Jonava inc, 2019).

The overall financial performance of Kenyan unit trusts has recently been plagued by a slew of issues. According to Ametefe (2018), investment decisions have contributed

to the fall in the financial performance of Kenyan unit trusts, particularly real estate investment concentration. Investment decisions by unit trusts has been shown to be poor, inefficient, less transparent, and laborious, resulting in bureaucracy and a high risk of corruption, all of these factors have had a considerable impact on these unit trusts' financial performance (Ogum & Jagongo, 2022).

Globally, there exist empirical studies in this area but they exhibit conceptual, contextual and methodological research gaps. Ali, Rehman, Suleman and Ntim (2022) examine the mediating role of investment decisions in enhancing a firm's performance in Pakistan and that investment decisions mediate the nexus between CEO attributes and firm performance. In contrast to unit trusts, the research concentrated on non-financial firms in Pakistan and therefore a contextual gap. Wang, Zhang, Ahmed and Shah (2022) determined the impact of investment behavior on financial markets during COVID-19 with respect to the UK. The study did not take into investment decisions effect on ROI and therefore a conceptual gap. Ahmad, Wu and Abbass (2022) explored the mechanism by which recognition-based heuristic biases influence the investment decision-making and performance of individual investors, with the mediating role of fundamental and technical anomalies. The direct effect of investment decisions on performance was not taken into account and therefore a conceptual gap.

Locally, Ogum and Jagongo (2022) sought to examine the impact of investment decisions on the financial performance of DT-SACCOS in Nairobi City County. The study focused on DT-SACCOs whose nature of operations is different from unit trusts which are the focus of the current study. Keli (2021) attempted to ascertain how the performance of pension funds in Kenya is impacted by real estate investments. The

research presents a conceptual gap as other types of investments such as shares and government bonds were not taken into account. Wanyonyi (2020) focused on the effect of macroeconomic factors on financial performance of unit trusts in Kenya. The study revealed that interest rate, inflation rate, economic growth and money supply are statistically significant factors affecting financial performance of unit trusts.

The current study was motivated by the performance challenges facing unit trusts in Kenya. Effective investment decisions are hypothesized to enhance financial performance. Although there are previous studies in this area, the studies have not addressed the effect of investment decisions on financial performance among unit trusts in Kenya and therefore a conceptual gap. The current study leveraged on this knowledge gap by answering the research question; what is the effect of investment decisions on financial performance of unit trusts in Kenya?

1.3 Research Objective

The objective of this research was to determine the effect of investment decisions on financial performance of unit trusts in Kenya.

1.4 Value of the Study

The conclusions of this research will contribute to the theoretical existing discussion on the modern portfolio theory, arbitrage pricing theory and capital asset pricing model. The research will as well add value to the practical publications on investment decisions and financial performance. In addition, studies may also be conducted in line with the recommendation and suggestions for further research.

This study will be particularly valuable for stakeholders in the pension sector as it provides essential data for investments management. These stakeholders include pension scheme trustees, members, fund managers and regulatory bodies. The

management of unit trusts will benefit the most from this because it shows how they might improve their unit trusts' financial performance by making investment selections.

The outcomes of this study will be used to guide and formulate policies by the government and other policymakers. The findings will serve as a reference for Kenyan unit trusts and other financial institutions in making investment decisions that will increase their financial performance and hence contribute to the sector's development.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents a comprehensive investigation of the conceptual foundations of portfolio make-up and return on investment. In addition, it provides a summary of earlier empirical research, draws attention to knowledge gaps, and wraps up with a conceptual framework and hypotheses that suggest the predicted relationship between the variables that were researched.

2.2 Theoretical Framework

This section summarizes key theories explaining link between investment decisions and financial performance. The study reviewed the modern portfolio theory, arbitrate pricing theory and capital asset pricing theory.

2.2.1 Modern Portfolio Theory

Markowitz (1952) coined the theory on his write up for portfolio mixture and it is the anchor theory for the current study. This theory put an emphasis on how it is possible to maximize expected returns by creating weighted portfolio utilizing risks thresholds. The theory stated that institution may build portfolio that optimize anticipated return at specified risk levels. This theory states that profit can be maximized by choosing proportions of different investments that will lower the investment risk level.

Unsystematic risks and systematic risks were defined by the theory as the two categories of hazards that investors should be aware of. Unsystematic risk is linked to the degree of volatility of a single investment, whereas systematic risk is inherent in market volatility across the board or in particular segments of it. Investors are consequently advised to combine their portfolios by ensuring that any specific risks

incurred by one investment are mitigated by fewer specific risks in other investments (Cuthbertson, 2004).

This theory is critiqued by behavioural finance theorists for its assumptions and failure to consider the role of human behaviour in maximizing returns. According to Brueggeman and Fisher (2011), macroeconomic variables generally influence the business environment within the economy. An environment of volatile economic variables including inflationary pressures and volatile exchange rates, infer that returns to businesses and financial firms in particular shall fluctuate. Unstable returns therefore dominate performances of financial firm like environment fluctuates hence affecting their growth. This research has contribution to the current research as it recognizes that financial performance of firms is a product of several internal and external variables. The theory is relevant as it relates investment decisions with financial performance of firms.

2.2.2 Arbitrage Portfolio Theory

Arbitrage Portfolio Theory (APT) was coined by economist Stephen Ross (1976). It explains the relationship between portfolio asset returns and the linear combination of numerous independent macroeconomic variables. This theory is a one-period model that predicts an asset's returns using different risk variables and the same asset. Its focus is different from typical investment analysis and it's best suited for managing enormous pools of money. It is crucial to know how much risk your company is exposed to before deciding on the appropriate degree of risk (Ross, 1976). APT's core discovery is that the long-term average returns of financial assets are determined by a few stable factors.

Arbitrage Portfolio Theory acknowledges the numerous elements that contribute to daily stock and bond price volatility, but concentrates on the major dynamics affecting huge portfolios' aggregate assets (Kim, Korajczyk & Neuhierl, 2020). By recognizing these forces, we can have a better sense of how they affect portfolio results. The ultimate goal is to improve overall portfolio design and performance by gaining a better grasp of portfolio construction and evaluation.

Because it does not rely on predicting how the market will operate, arbitrage pricing theory has been questioned. Instead, it publicly links the price of an asset to the underlying factors that influence it. The problem is that the theory doesn't specify what these components are, thus they have to be discovered through experimentation (Kim, Korajczyk & Neuhierl, 2020). Furthermore, APT is based on three major assumptions: perfect capital market competition, assurance that investors would always want more wealth, and that the stochastic process that creates asset returns can be described as a linear function of a set of risk factors (Reilly & Brown, 2012).

The current study is pertinent to APT since it is modelled in such a way that it isolates and prices assets individually. Real estate is not as smooth as stocks, and it is difficult for an investor to take advantage of a short-term arbitrage opportunity. The pension fund can profit from pricing discrepancies between the beginning and the completion of a real estate project's construction. As a result of capital appreciation, arbitrage opportunities emerge and if taken advantage of, they help to improve the unit trust's financial performance.

2.2.3 Capital Asset Pricing Model

The Capital Asset Pricing Model (CAPM) was developed by William Sharpe (1964) and John Lintner (1965). The Capital Asset Pricing Model predicts how to assess risk

and the expected return-risk relationship. A mean-variance efficient portfolio with the same mean-variance is often used to calculate the CAPM. To explain why some assets have higher expected returns than others, asset pricing theorists employ the CAPM (Rossi, 2016). The portfolio includes risky capital assets that are weighted by their market value, and these portfolios include both classic and non-traditional asset classes such as real estate and commodities. Sharpe (1964) introduces the implications that, regardless of risk preferences, an investor will keep hazardous assets in their portfolio whose individual risk profiles are defined by their covariance with the market and the reward to investors for bearing systematic risk.

CAPM critics argue that the model is oversimplified as a result of its two essential assumptions. The model assumes that investors can borrow or lend any amount of money at a risk-free rate and that the risk-free rate is consistent across all investors regardless of the amount borrowed or lent. Second, all investors have equal expectations, resulting in comparable probability distributions for future returns over the same time span. As a result, CAPM can calculate the risk price and risk measure for a given asset (Elbannah, 2015). There are no taxes or transaction costs associated with the acquisition or sale of assets, no inflation impacts or interest rate adjustments, and the capital markets are in equilibrium, with all investments priced properly.

Despite this, CAPM was important to the current research since it is used to aid decision-making when deciding between different investments and assets in the face of risk and uncertainty. It attempts to explain asset prices while they are in a state of equilibrium. It is taken into account while purchasing an asset and analyzing the investment portfolio's success. Diversification offers returns that are commensurate with market risk and the possibility for portfolio returns that have a premium above

the risk free rate. Diversification also reduces systemic risk. This theory proposes that diversification and financial performance have a positive link.

2.3 Determinants of Financial Performance

This section discusses the determinants of financial performance for unit trusts. The three determinant of financial performance of unit trusts adopted in this study are investment decisions, liquidity and fund size. These factors are discussed in the following sections.

2.3.1 Investment Decisions

Investment decisions are one of the key decisions for management of any organization. According to Quaicoe and Eleke-Aboagye (2021), the principal reason of holding diversified portfolio rather than a single investment is to maximize return while minimizing risk. Rehan, Alvi, Javed and Saleem (2021) pointed out that investment diversification is important in that it reduces the level of systematic risk incidental to a portfolio. The investment manager has a list of investment opportunities and has to make a decision on the opportunities to focus on to maximize financial performance (Osewe, 2020). Ogum and Jagongo (2022) argue that investment decision affects financial performance of firms positively and significantly.

According Nassar (2018), in order to achieve efficient financial performance, unit trusts must always be professionally managed and operate in a controlled framework. Professional management services are always offered at a cost, which has a detrimental influence on unit trusts' overall financial performance. Members' contributions are the most important source of income for the unit trusts and this should be complemented by investment income.

2.3.2 Firm Liquidity

According to Cheluget, Gekara, Orwa, and Keraro's (2014) argument, there is a correlation between a company's financial performance and its liquidity. They also discovered that liquidity management has a significant impact on performance. Increases in cost efficiency were significantly influenced by indices of liquidity and solvency; when these indications are taken into consideration, enterprises with higher bought input costs similar to capital have a lower likelihood of becoming efficient (Arif, 2012).

Firms with higher spending on purchased inputs compared to capital are less likely to boost efficiency when liquidity and solvency indicators are included (Levi, Russell, & Langemeier, 2013). Liang Fu (2016) claims that liquidity is another word for corporate liquidity which refers to the amount of liquid assets recorded in the accounting records. Family businesses have less tolerance for the danger of financial distress when investing in companies with liquidity risk, as seen by their substantially higher levels of corporate liquidity (Liang Fu, 2016).

2.3.3 Fund Size

A fund's earnings from economies of scale are inversely correlated with its size. Due to significant economies of scale, firm operational activities have a higher efficiency the larger it is. Large organizations, irrespective of its size, risk losing control of both their operational and strategic activities, which would reduce their efficiency (Burca & Batrinca, 2015).

Large funds can spread their portfolios more and have more market power. They are also more likely to experience organizational waste if the business expands quickly. The amount of invested cash flow greatly depends on the size of the fund. When

determining a fund's size, as per Almajali et al., (2012) it is crucial to take its total assets into account.

2.4 Empirical Review

Locally and globally researches have established the link between investment decisions and financial performance, the objectives, methodology and findings of these studies are discussed.

2.4.1 Global Studies

Ali et al. (2022) examines the role of a CEO in enhancing a firm's performance through the mediating effect of investment decisions in the emerging economy of Pakistan. Distinctly, fixed-effects panel regression method is employed to examine the said nexus of nonfinancial firms listed at the Pakistan Stock Exchange. It is empirically unearthed that CEO attributes, namely, age, tenure, ownership, financial education, and career experience, are positively related to firm performance in general and capital investment decisions in particular. Second, capital investment decisions partially and significantly mediate the nexus between CEO attributes and firm performance with few exceptions that confirm the theoretical implications of upper echelons theory in an emerging economy context. In contrast to unit trusts, the research concentrated on non-financial firms in Pakistan and therefore a contextual gap.

Wang et al. (2022) determined the impact of investment behavior on financial markets during covid-19 with respect to the UK. This study was quantitative, where the data was gathered from the primary sources of information. The researcher adopted the non-probability convenience sampling through which 337 responses were gathered. The questionnaire was self-administered. Concerning the analysis, the SEM technique

was adopted. The study's analysis determined significant moderation of covid-19 uncertainty over the relationship of risk perception and general risk to tolerance. Similarly, the moderation of covid-19 uncertainty over the relationship of risk perception and financial risk to tolerance was also determined. Additionally, the profitability rate's effect was determined by the financial risk tolerance and general risk tolerance. The study did not take into investment decisions effect on ROI and therefore a conceptual gap.

Ahmad et al. (2022) aims to explore and clarify the mechanism by which recognition-based heuristic biases influence the investment decision-making and performance of individual investors, with the mediating role of fundamental and technical anomalies. The deductive approach was used. A questionnaire and cross-sectional design were employed for data collection from the sample of 323 individual investors trading on the Pakistan Stock Exchange. The results suggest that recognition-based heuristic-driven biases have a markedly positive influence on investment decision-making and negatively influence the investment performance of individual investors. The direct effect of investment decisions on performance was not taken into account and therefore a conceptual gap.

Quaicoe and Eleke-Aboagye (2021) aims to investigate the psychological factors that tend to influence the decisions of investors. The study used a questionnaire to survey a total of 350 investors holding stocks of listed banks on the Ghana Stock Exchange. The study found the existence of various behavioural biases among the investors surveyed. The most dominant factor or bias found to be influencing investment decisions of respondents was herding with nearly 62% weight. Again, biases such as regret aversion and gambler's fallacy were also found to strongly influence the

decisions of investors, along with mental accounting, overconfidence and anchoring. The effect of investment decisions on financial performance was not considered and therefore a conceptual gap.

Rehan, Alvi, Javed and Saleem (2021) investigated the role of behavioral finance and investor psychology in investment decision-making at the Pakistan Stock Exchange. Using a sample of 147 individual investors, the study established that behavioral factors such as herding, heuristic, market and prospect that affected the decisions of the investors operating at the Pakistan Stock Exchange. As there are a few studies in Pakistan related to behavioral finance, so this study mainly contributes to the field of behavioral finance in Pakistan. This study focuses on existing theories of behavioral finance which led to develop the hypothesis. The result of the analysis is that the four variables have greatly influenced the investment decision and return on investment. All behavioral variables have a significant impact on the decision-making process of investors, which led to the acceptance of all assumptions regarding the level of influence of behavioral factors in decision making for individual investors. The social and economic setting of Pakistan is diverse from Kenya where the current study will be conducted.

2.4.2 Local Studies

Ogum and Jagongo (2022) sought to examine the impact of investment decisions on the financial performance of DT-SACCOS in Nairobi City County. A causal research design of research and a target populace of 40 DT-SACCOS was relied on. Secondary data matrices were used in collecting data from the finance managers. The study showed that: investment in real estate had an insignificant inverse effect on the financial performance of DT-SACCOS in Nairobi City County while investment in

lending to members for development had significant positive effect; investment in FOSA products had insignificant inverse effect while investment in money and bond markets had insignificant positive effect on the financial performance of DT SACCOS in Nairobi City County. The study focused on DT-SACCOs whose nature of operations is different from unit trusts which are the focus of the current study.

Gachenga (2022) sought to assess the relationship between investment decisions and liquidity of farmers-based DT SACCOs. Descriptive cross-sectional survey research design was employed where the study population consisted of 49 finance managers and 49 credit managers of the 49 farmers-based DT SACCOs respectively. The study analyzed data through multiple regression models. The regression models revealed that; lending decision, financial investment decision, research and development decision and human capital decision have a significant nexus with liquidity of farmers-based DT-SACCOs. Moreover, the study found that; SACCO size strengthens the relationship between investment decision and liquidity of farmers-based DT SACCOs. The study reveals a conceptual gap as its operationalization of investment decisions did not take into accounts the various asset classes.

Keli (2021) attempted to ascertain how the performance of pension funds in Kenya is impacted by real estate investments. Descriptive research design was used. The target population was the 1340 pension funds in Kenya. The sample size was 134 pension funds which represented 10% of the entire population. Regression and correlation analysis were used to test the study hypotheses by establishing the relationship between real estate investments and performance. The study found that real estate investments, fixed income investments and listed equity had a positive and significant effect on the performance among pension funds in Kenya. The research presents a

conceptual gap as other investments such as shares and government bonds were not considered.

Osewe (2020) sought to examine the effect of portfolio diversification on financial performance of investment firms listed at the NSE, Kenya. The study adopted descriptive research design. The target population included all 5 listed investment firms as at 31st December 2021. The study extracted annual secondary data from audited financial statements and other published data of the concerned listed investment firms. The data was collected for ten years beginning 2010 to 2021. Regression results showed that investment portfolio diversification, firm size and liquidity had a significant effect on financial performance of financial performance among investment firms listed at the NSE Kenya. This study focused on listed investment firms, while the current research is centered on Kenyan unit trusts.

Wanyonyi (2020) focused on determining how selected macro-economic variables impact performance of unit trusts in Kenya. A ten year period (2010-2019) was chosen for the study and the quarterly data from the period collected from a secondary source. A descriptive design was chosen and analysis was made using the multiple linear regression model to determine how the selected variables relate. The results showed that individually, interest rate, inflation rate, economic growth and money supply are statistically significant factors affecting financial performance while exchange rate does not substantially determine financial performance of unit trusts. The study reveals a conceptual gap as investment decisions were not taken into account.

2.5 Conceptual Framework

Displayed in figure 2.1 is the anticipated link between the variables. The predictor variable was investment decisions given by investments in real estate, government securities, fixed deposits and shares. The control variables were fund liquidity and fund size. The response variable was financial performance given by the risk-adjusted return on investment.

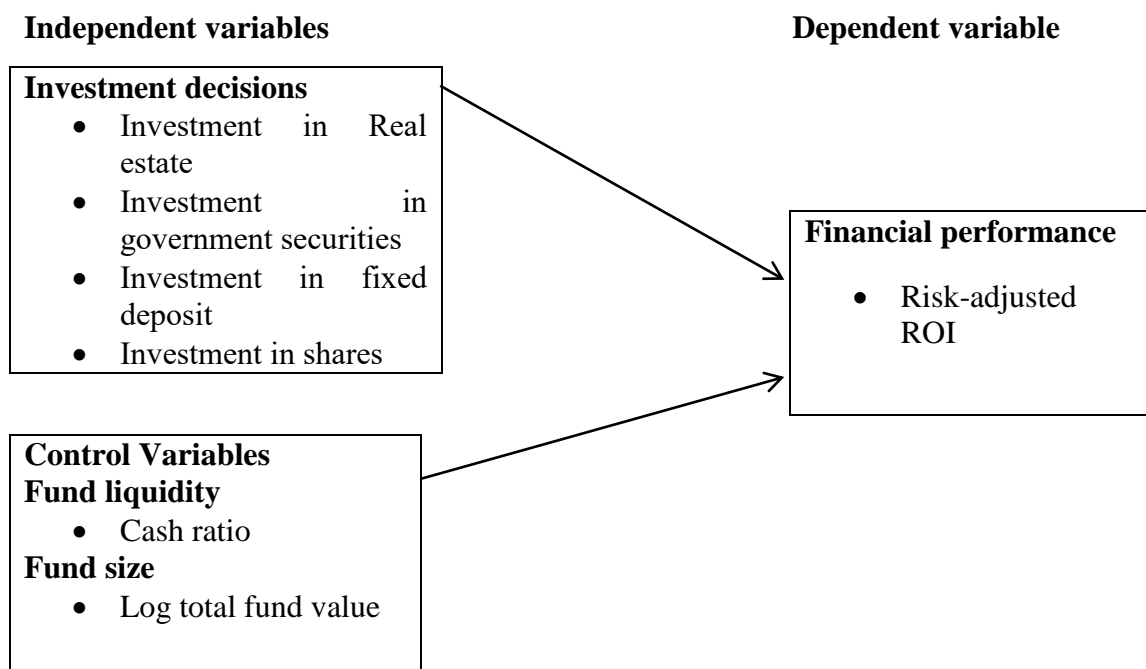


Figure 2.1: Conceptual Model

Source: Researcher (2022)

2.6 Summary of the Literature Review

Various models have been proposed to characterize the theoretical relationship between the investment decisions and financial performance. MPT, APT, and CAPM are among the theories discussed. This segment too covers the primary factors of financial performance. On investment decisions and financial performance, both local and foreign researches have been conducted. In this segment, the results linked to

them have been described. The fact that prior researchers had reached a minimum level of agreement was justification enough to pursue further investigation. The current study leveraged on this gap.

Differences in the operationalization of investment decisions revealed conceptual gaps. The absence of consensus in accepted research methods revealed methodological inadequacies from the empirical investigations research. Differences in research contexts revealed contextual gaps discovered during the review of empirical investigations. The majority of empirical studies on the topic were conducted in developed nations, and those conducted in the local context failed to focus on unit trusts. These gaps have revealed that there are still some unclear areas in this area. The goal of the study was to make a contribution in this area.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter highlights the steps and methods embraced in the execution of the proposed study. It particularly covers the data collection methods, population, research design, operationalization of the variables, and data analysis techniques.

3.2 Research Design

The descriptive study design was adopted in this research to estimate the effect of unit trusts' investment decisions on financial performance. Cooper and Schindler, (2014), suggest that the most systematic research design is the descriptive one as it consists of a practical inquiry whereby the researcher does not directly control the independent variable due to their manifestation having already occurred or their inherent inability to manipulate. A defining study method was the most suitable as the research sought to creating a profile about the link between unit trusts' investment decisions on financial performance.

3.3 Population

A population is all observations from a collection of interest like events specified in an investigation (Burns & Burns, 2008). The 24 unit trusts registered by CMA as at 31st December 2021 made up the study's population.

3.4 Data Collection

Data was acquired exclusively from secondary sources. Data from secondary sources was collected using data collecting sheet and was obtained from a range of publications from CMA and the individual unit trusts for the period between January 2017 and December 2021. This period was chosen as it provided the latest data

among unit trusts in Kenya. Among the specific statistics collected were the risk adjusted ROI, values of real estate investments, fixed income investments, listed shares, fixed deposits, cash ratio and fund size. CMA was chosen as the main source of data since it is the regulator of unit trusts in Kenya and the trusts are mandated by law to file financial reports with the regulator.

3.5 Data Analysis

Stata 16 was used to do an analysis on the data collected. Charts and tables were used to quantitatively display the results. Together, the gathered descriptive statistics and the standard deviation served as the basis for measurements of central tendency and dispersion for each variable. Both correlation and regression played a role in the construction of inferential statistics. A panel regression linearly determined the relation between dependent and independent variables.

3.5.1 Diagnostic Tests

The diagnostic tests performed are outlined in Table 3.1

Table 3.1: Diagnostic Tests

Assumption	Description	Test	Interpretation	Treatment
Normality	To verify normal distribution, the test is conducted	Jarqu-Bera test	If p values are above 0.05, the variables are normally distributed	application of square roots or logs to non-normality
Multicollinearity	The phenomenon known as multicollinearity occurs when there is a connection between many variables, which then leads to the standard errors distorting the regression analysis.	VIF Test	Multicollinearity exist where the $VIF > 10$	Eliminate highly correlated variables.

Heteroscedasticity	to determine whether the model's or the errors' variance is different for each observation	Breusch–Pagan test	Heteroscedasticity exist where the p-value $p < 0.05$)	Use Natural log of variables
Autocorrelation	To determine the value of a single variable by considering other variables that are connected to it.	Durbin-Watson test.	If p-values are lower than 0.05, autocorrelation is present.	Hildreth-Lu Procedure
Stationarity test	In order to evaluate whether or not a time series variable has a unit root and whether or not it is stationary	Levin-Liu test	If p values are below 0.05, unit roots exist.	Use Natural log of variables
Hausman specification test	To differentiate between fixed-effects and random-effects models and identify the optimal one	Hausman test	Use fixed effects model if p value is less than 0.05 and random effects if otherwise	Use natural log of variables

3.5.2 Analytical Model

The following equation was applicable:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Where: Y = Financial performance measured by risk-adjusted ROI

β_0 = y intercept of the regression equation.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ = are the slope of the regression

X_1 = Investment in real estate as measured by the proportion of investments held in real estate divided by total investments

X_2 = Investment in government securities measured as a proportion of investment held in government securities divided by total investments

X_3 = Investment in fixed deposit measured as a proportion of investment held in fixed deposits divided by total investments.

X_4 = Investment in shares measured as a proportion of investment held in

shares divided by total investments

X_5 = Fund liquidity as measured by cash ratio

X_6 = Fund size as measured by natural logarithm of total fund value

ε =error term

3.5.3 Tests of Significance

The relevance of the overall model as well as the variable was determined via the use of parametric tests. To determine whether the model was significant, the study used the F-test in the analysis of variance (ANOVA), but to determine if any given variable was statistically significant, the study used the t-test.

CHAPTER FOUR: DATA ANALYSIS RESULTS AND FINDINGS

4.1 Introduction

This chapter offers descriptive statistics and the results and interpretations of various tests namely; test of normality, Multicollinearity, heteroskedasticity tests, autocorrelation and stationarity test. The chapter also presents the results of Pearson correlation and regression analysis.

4.2 Descriptive Statistics

This segment offers the descriptive findings from the collected data. The descriptive results include mean and standard deviation for every research variables. The analyzed data was acquired in distinct unit trusts annual reports for duration of 5 years (2017 to 2021). The number of observations is 120 (24*5) as 24 unit trusts provided complete data for the 5 year period. The outcomes are displayed in Table 4.1.

Table 4.1: Descriptive Results

	N	Minimum	Maximum	Mean	Std. Deviation
ROI	120	-.3061	.3650	.070861	.1116136
Real estate	120	4.3175	8.0294	6.608093	.4221422
Government securities	120	5.0182	7.3953	5.932572	.4101631
Fixed deposit shares	120	4.0943	8.5218	7.733358	.7832092
Fund liquidity	120	.0074	3.2957	1.010709	.5099498
Fund size	120	6.0724	8.7303	7.943259	.5461907
Valid N (listwise)	120				

Source: Field data (2022)

4.3 Diagnostic Tests

As rationalised in chapter three, the researcher steered diagnostic tests to ensure that the assumptions of Classic Linear Regression Model (CLRM) are not violated and to attain the appropriate models for probing in the significance that the CLRM hypotheses are infringed. As a result, pre-approximation and post-approximation assessments of the regression model were performed prior to processing. The multicollinearity test and unit root test were the pre-approximation tests used in these situations, whereas the normalcy test, test for heteroskedasticity, and test for autocorrelation were the post-estimation tests.

4.3.1 Normality Test

The normality of data can be tested using a variety of methods. The most commonly used methods include the Jarque-Bera test, Shapiro–Wilk test and Kolmogorov–Smirnov test. The study used the Jarque-Bera test as the numerical method of determining normality. The null hypothesis says that the data are obtained from a normally distributed population. The null hypothesis is rejected when p-value is less than 0.05, and the data are said to be not normally distributed. If any violation of the assumption of normality was detected, necessary corrective measures were applied.

Table 4.2: Test for Normality

	Jarque-Bera Coefficient	P-value
ROI	3.624	0.201
Real estate	4.304	0.302
Government securities	4.428	0.404
Fixed deposit	2.763	0.315
Shares	3.153	0.327
Fund liquidity	4.239	0.400
Fund size	4.145	0.301

Source: Research Findings (2022)

Evident in Table 4.2 results, all the study variables have a p value above 0.05 and therefore possess normal distribution.

4.3.2 Multicollinearity Test

Multicollinearity transpires when the regression model independent variables are significantly linked. Multicollinearity was assessed using the VIF and tolerance indices. If the VIF value is above ten and the tolerance score is below 0.2, multicollinearity is present, and the assumption is broken. The VIF values are less than 10, indicating no problem with multicollinearity.

Table 4.3: Multicollinearity

Variable	Collinearity Statistics	
	Tolerance	VIF
Real estate	0.518	1.931
Government securities	0.312	3.205
Fixed deposit	0.629	1.590
Shares	0.801	1.248
Fund liquidity	0.823	1.215
Fund size	0.718	1.393

Source: Research Findings (2022)

4.3.3 Heteroskedasticity Test

The residual variance from the model must be constant and unrelated to the independent variable in linear regression models calculated using the Ordinary Least Squares (OLS) method(s). Homoskedasticity refers to constant variance, whereas heteroscedasticity refers to non-constant variance (Field, 2009). The research utilized the Breusch-Pagan/Cook-Weisberg test to check if the variation was heteroskedastic. The null hypothesis implies constant variance, indicating that the data is homoscedastic. The outcomes are presented in Table 4.4.

Table 4.4: Heteroskedasticity Results

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity		
chi2(1)	=	0.8219
Prob > chi2	=	0.6329

Source: Research Findings (2022)

As evident in Table 4.4 null hypothesis was not rejected owing to the 0.6329 p-value, which was statistically significant ($p > 0.05$). As a result, the dataset had homoskedastic variances since the P-values of Breusch-Pagan's test for homogeneity of variances above 0.05. The test thus confirmed homogeneity of variance. The data can therefore be used to conduct panel regression analysis.

4.3.4 Autocorrelation Test

Serial correlation, also known as autocorrelation, makes the standard errors of coefficients appear to be less than in linear panel data models, resulting in higher R-squared and erroneous hypothesis testing. Autocorrelation was verified via Durbin-Watson test. If the Durbin-Watson test results in a value of 2, the error terms of regression variables are uncorrelated (i.e. between 1 and 3). The nearer the figure to 2 is; the better. The outcomes are presented in Table 4.5.

Table 4.5: Test of Autocorrelation

Durbin Watson Statistic
1.865

Source: Research Findings (2022)

The Durbin-Watson statistic was 1.865, according to the findings in Table 4.5. The fact that the Durbin-Watson statistic was near to 2 demonstrates that the error terms of regression variables are uncorrelated.

4.3.5 Stationarity Test

The research variables were subjected to a panel data unit-root test to establish if the data was stationary. The unit root test was Levin-Lin Chu unit root test. At a standard statistical significance level of 5%, the test was compared to their corresponding p-values. In this test, the null hypothesis is that every panel has a unit root, and the alternative hypothesis is that at least one panel is stationary. The Levin-Lin Chu unit root test outcomes are listed in Table 4.6.

Table 4.6: Levin-Lin Chu unit-root test

Levin-Lin Chu unit-root test			
Variable	Statistic	p value	Comment
ROI	6.4722	0.0000	Stationary
Real estate	7.3975	0.0000	Stationary
Government securities	6.2126	0.0000	Stationary
Fixed deposit	8.2031	0.0000	Stationary
Shares	7.8718	0.0000	Stationary
Fund liquidity	6.8447	0.0000	Stationary
Fund size	6.8132	0.0000	Stationary

Source: Research Findings (2022)

As demonstrated in Table 4.6, this test concludes that the data is stationary at a 5% level of statistical significance since the p-values all fall below 0.05.

4.3.6 Hausman Test

When using panel data, it is essential to establish if a fixed effect or random effect model is more desirable. For the purpose of choosing the best panel regression model, the Hausman specification test was used. In essence, a Hausman specification test determines if the unique errors have a relationship to the regressors, with the null hypothesis being that they do not (random effect is preferred). Fixed effects were utilized if the P-value was significant (below 0.05), while random effects were used otherwise. The results of the Hausman test are shown in Table 4.7.

Table 4.7: Hausman Test Results

chi2(6)	P-Value
24.38	0.0000

Null Hypothesis: The appropriate model is Fixed Effects

Source: Research Findings (2022)**4.4 Correlation Results**

To determine the degree and direction of link between each predictor variable and the response variable, correlation analysis was carried out. The Correlation results are as displayed in Table 4.8

Table 4.8: Correlation Results

		ROI	Real estate	Govt securities	Fixed deposit	shares	Fund liquidity	Fund size
ROI	Pearson Correlation	1						
	Sig. (2-tailed)							
Real estate	Pearson Correlation	.198*	1					
	Sig. (2-tailed)	.030						
Govt securities	Pearson Correlation	.277**	.240**	1				
	Sig. (2-tailed)	.002	.008					
Fixed deposit	Pearson Correlation	.003	.026	.175	1			
	Sig. (2-tailed)	.971	.779	.056				
shares	Pearson Correlation	.077	.097	.074	.039	1		
	Sig. (2-tailed)	.406	.291	.422	.672			
Fund liquidity	Pearson Correlation	.186*	.215*	.003	.091	-.037	1	
	Sig. (2-tailed)	.042	.019	.975	.322	.690		
Fund size	Pearson Correlation	.352**	.207*	.146	.112	.222*	.051	1
	Sig. (2-tailed)	.000	.023	.111	.224	.015	.582	

*. Correlation is significant at the 0.05 level (2-tailed).
 **. Correlation is significant at the 0.01 level (2-tailed).
 c. Listwise N=120

Source: Research Findings (2022)

The correlation findings in Table 4.8 display correlation nature between the research variables in relation to magnitude and direction. The correlation results disclose that investment in shares and investment in fixed deposits have a weak positive but not significant link with performance of unit trusts in Kenya. Investment in real estate has a weak positive as well as significant link with performance of unit trusts ($r=0.198$) at 5% significance level. The outcomes disclose that investment in government securities and performance have a positive as well as significant correlation ($r=-0.288$) at 5 % significance level. The outcomes also reveal that both fund liquidity and size had positive as well as significant relation with performance of unit trusts as depicted by p values below 0.05.

4.5 Regression Results

To determine the extent to which performance of unit trusts is described by the chosen variables, regression analysis was used. In Table 4.9, the regression's findings were displayed. From the conclusions as epitomized by the adjusted R^2 , the studied independent variables explained variations of 0.2571 of performance of unit trusts in Kenya. This suggests that other factors not studied account for 85.68% of the variability in performance of unit trusts in Kenya, while the six variables account for 25.71% of those variations.

The data had a 0.000 significance level, according to Table 4.9's ANOVA results, which suggests that the model is the best choice for drawing conclusions about the variables.

Table 4.9: Regression Results

ROI	Coef.	std.err	z	P> z 	[95% conf.interval]	
Real estate	0.006	0.099	1.19	0.232	0.312	0.075
Government securities	0.055	0.025	1.25	0.217	0.488	0.114
Fixed deposit	0.093	0.025	3.21	0.001	0.032	0.131
Shares	0.044	0.012	2.64	0.008	0.058	0.008
Fund liquidity	0.043	0.015	2.18	0.029	0.003	0.061
Fund size	0.114	0.023	4.31	0.001	0.446	0.492
_cons	0.288	0.126	2.2	0.000	0.523	0.030

R squared =0.2571

Wald chi2(6)=6.518

Prob>chi2=0.000

Source: Research Findings (2022)

The regression model's coefficient was as follows;

$$Y = 0.288 + 0.093X_1 + 0.044X_2 + 0.043X_3 + 0.114X_4$$

Where:

Y = ROI X₁ = Investment in real estate; X₂=Investment in government securities; X₃
= Fund liquidity; X₄= Fund size

4.6 Discussion of Research Findings

The objective of this research was establishing the effect of investment decisions on performance of unit trusts in Kenya. The research applied a descriptive design whereas population was the 24 unit trusts in Kenya. Complete data was acquired from all the 24 unit trusts in Kenya and which were considered adequate for regression analysis. The research applied secondary data which was acquired from CMA and individual unit trusts annual statements. The independent variable was investment decisions measured as investment in shares, investment in fixed deposits, investment in real estate as well as investment in government securities while the control variables were; fund size and liquidity. Both descriptive as well as inferential statistics were useful in examining the data. This section discusses the findings.

The correlation results disclose that investment in shares and investment in fixed deposits have a weak positive but not substantial link with performance of unit trusts in Kenya. Investment in real estate has a moderate positive as well as significant link with performance of unit trusts. The outcomes disclose that investment in government securities and performance has a positive as well as significant correlation. The outcomes also reveal that both liquidity and size had positive as well as significant relation with performance of unit trusts.

Multivariate regression outcomes revealed that the R square was 0.2571 implying that 25.71% of changes in performance of unit trusts are due to the six variables alterations selected for this study. This means that variables not considered explain 74.29% of changes in performance. The overall model was also statistically significant as the p value was 0.000 that is below the 0.05 significance level. This infers that the overall model had the required goodness of fit.

The multivariate regression analysis further revealed that individually, investment in shares and investment in fixed deposits have no significant effect on performance of unit trusts in Kenya. However, investment in real estate produced positive and significant values for this study ($\beta=0.093$, $p=0.001$). Investment in government securities displayed a positive and significant performance influence as shown by ($\beta=0.044$, $p=0.008$). Both fund liquidity and size have a positive effect on performance of unit trusts as shown by ($\beta=0.043$, $p=0.029$) and ($\beta=0.114$, $p=0.001$) correspondingly.

These conclusions concur with Keli (2021) who attempted to ascertain how the performance of pension funds in Kenya is impacted by real estate investments. Descriptive research design was used. The target population was the 1340 pension

funds in Kenya. The sample size was 134 pension funds which represented 10% of the entire population. Regression and correlation analysis were used to test the study hypotheses by establishing the relationship between real estate investments and performance. The study found that real estate investments, fixed income investments and listed equity had a positive and significant effect on the performance among pension funds in Kenya.

The research findings also concur with Osewe (2020) who sought to examine the effect of portfolio diversification on financial performance of investment firms listed at the NSE, Kenya. The study adopted descriptive research design. The target population included all 5 listed investment firms as at 31st December 2021. The study extracted annual secondary data from audited financial statements and other published data of the concerned listed investment firms. The data was collected for ten years beginning 2010 to 2021. Regression results showed that investment portfolio diversification, firm size and liquidity had a significant effect on financial performance of financial performance among investment firms listed at the NSE Kenya.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The key aim of the research was determining how investment decisions influences the performance of unit trusts in Kenya. This section includes a summary of the findings from the previous chapter as well as the conclusions and limitations of the study. Additionally, it makes recommendations for potential policy measures. The chapter provides recommendations for further research.

5.2 Summary of Findings

The research objective was to assessing how investment decisions influence performance of unit trusts in Kenya. The research applied a descriptive design whereas population was the 24 unit trusts in Kenya. Complete data was acquired from all the 24 unit trusts in Kenya and which were considered adequate for regression analysis. The research applied secondary data which was acquired from CMA and individual unit trusts' annual statements. The independent variable was investment decisions measured as investment in shares, investment in fixed deposits, investment in real estate as well as investment in government securities while the control variables were; fund size and liquidity. Both descriptive as well as inferential statistics were useful in examining the data. This section discusses the findings.

The correlation results disclose that investment in shares and investment in fixed deposits have a weak positive but not substantial link with performance of unit trusts in Kenya. Investment in real estate has a moderate positive as well as significant link with performance of unit trusts. The outcomes disclose that investment in government securities and performance has a positive as well as significant correlation. The

outcomes also reveal that both liquidity and size had positive as well as significant relation with performance of unit trusts.

Multivariate regression outcomes revealed that the R square was 0.2571 implying that 25.71% of changes in performance of unit trusts are due to five variables alterations selected for this study. This means that variables not considered explain 74.29% of changes in performance. The overall model was also statistically significant as the p value was 0.000 that is below the 0.05 significance level. This infers that the overall model had the required goodness of fit.

The multivariate regression analysis further revealed that individually, investment in shares and investment in fixed deposits have no significant effect on performance of unit trusts in Kenya. However, investment in real estate produced positive and significant values for this study ($\beta=0.093$, $p=0.001$). Investment in government securities displayed a positive and significant performance influence as shown by ($\beta=0.044$, $p=0.008$). Both fund liquidity and size have a positive effect on performance of unit trusts as shown by ($\beta=0.043$, $p=0.029$) and ($\beta=0.114$, $p=0.001$) correspondingly.

5.3 Conclusions

The intention of the research was establishing correlation between investment decisions and Kenyan unit trusts' performance. The study concludes that investment in shares and investment in fixed deposits have no significant effect on performance of unit trusts. The research also comes to the conclusion that investment in real estate significantly and positively affects the performance of Kenya's unit trusts.

The findings designated that investment in government securities had a positive and significant effect on performance of unit trusts. This may imply that unit trusts with

substantial investment in government securities tend to have better performance compared to unit trusts with low real estate investments. This can be explained by the fact that real estate sector in the country has experienced rapid growth which translates to increased returns to holders and this eventually influences performance of unit trusts.

The research outcomes further depicted that fund size exhibited a positive as well as significant influence on performance which might mean that an increase in asset base of a unit trust leads to enhanced performance. This can be explained by the fact that unit trusts with more assets are likely to have developed structures to monitor the internal operations of a firm leading to better performance. Bigger unit trusts are also likely to have better governance structure which can also explain the high performance associated with fund size.

The study conclusions revealed that fund liquidity had a positive as well as significant effect on performance. This may mean that the unit trusts that have adequate liquidity are able to meet their obligations when they fall due and are also able to take advantage of investment opportunities that might arise in the course of doing business and therefore better performance compared with firms that have less liquidity.

5.4 Recommendations for Policy and Practice

The study revealed that investment in real estate possesses a significant positive effect on performance of unit trusts. The study recommends the need for unit trusts to enhance their investment in real estate as this will lead to a rise in their financial performance. Policy makers ought to develop policies on the target investments in real estate that unit trusts can adopt to enhance their performance.

The study's results indicate that investment in government securities significantly and positively affected performance. Hence, the research commends that unit trust investment in government securities should be encouraged as it boosts performance. This can be accomplished by having policies and guidelines requiring unit trusts to invest a specified percentage of their funds in government securities.

From the study findings, liquidity was found to enhance performance of unit trusts, this research recommending that unit trusts should keep adequate liquidity levels to sustain their obligations when they fall due whereas simultaneously time enjoying short term investment chances which may arise. The policy makers ought to set a limit of the liquidity level that unit trusts should have as too much liquidity is also disadvantageous as it comes with opportunity costs.

5.5 Limitations of the Study

The focus was on various factors which are thought to influence performance of Kenyan unit trusts. The study specifically examined six explanatory factors. Though, in certainty, there is presence of other variables probable to influence performance of firms including internal like leverage and managerial efficiency whereas others are beyond the control of the firm like interest rates as well as political stability.

In this research, five-year duration from 2017 to 2021 was selected. There is no evidence that comparable results will remain the same across a longer time frame. Moreover, it is impossible to predict if the same outcomes would persist until 2021. Given that additional time contains instances of big economic transitions like recessions and booms, it is more dependable.

The data quality was the main restriction for this research. It is not possible to conclusively conclude that the study's findings accurately reflect the current reality. It

has been presumed that the data utilized in the study are accurate. Due to the current conditions, there has also been a great deal of incoherence in the data measurement. The research utilized secondary data rather than primary data. Owing to the constrained data availability, only some of the growth drivers have been considered.

The data analysis was performed using regression models. Owing to the limitations associated with using the model, like inaccurate or erroneous findings resulting from a change in the variable value, the researchers would not be able to generalize the conclusions precisely. A regression model cannot be performed using the prior model after data is added to it.

5.6 Suggestions for Further Research

It has been suggested that several areas for advanced future research to be done on the basis of the tangible information gathered and the clarifying comprehension established in this research. First, other investment decisions aspects influence firm performance apart from the four selected for this study. More research can be conducted to determine and evaluate them. Additionally, other factors moderate, intervene, or mediate the relationship between investment decisions and firm performance apart from fund size, and liquidity. Further research can be done to identify and analyze them.

The current research scope was restricted to five years; more research can be performed past five years to determine whether the results might persist. Thus, inherent future studies may use a wider time span, which can either support or criticize the current research conclusions. The scope of the study was additionally constrained in terms of context where unit trusts were examined. Further studies can be extended to other firms in Kenya to establish if they complement or contradict the

current study findings. Researchers in the East African region, the rest of Africa, and other global jurisdictions can too perform the research in these jurisdictions to ascertain if the current research conclusions would persist.

The research only used secondary data; alternate research may use primary data sources such in-depth questionnaires and structured interviews given to practitioners and stakeholders. These can then affirm or criticize the results of the current research. This research used multiple linear regression as well as correlation analysis; future research could use other analytic techniques such factor analysis, cluster analysis, granger causality, discriminant analysis, and descriptive statistics, among others.

REFERENCES

- Ahmad, M., Wu, Q., & Abbass, Y. (2022). Probing the impact of recognition-based heuristic biases on investment decision-making and performance. *Kybernetes*, (ahead-of-print).
- Ali, R., Rehman, R. U., Suleman, S., & Ntim, C. G. (2022). CEO attributes, investment decisions, and firm performance: New insights from upper echelons theory. *Managerial and Decision Economics*, 43(2), 398-417.
- Almajali, Y.A., Alamro, S.H., & Al-Soub, Y.Z (2012). Factors affecting financial performance of Jordanian insurance companies listed at Amman stock exchange. *Journal of Management Research*, 4(2), 91-101
- Alslehat, Z. A., & Altahtamouni, F. R. (2014). The causal relationship between financial decisions and their impact on financial performance. *International Journal of Academic Research in Accounting, Finance and Management Sciences*,4(2), 72-80
- Asetto, F. (2014). *Effects of table banking on investment decision of small and medium enterprises in Nairobi County*. Unpublished MBA project. Nairobi: University of Nairobi
- Baba, F., & Nasieku, A.M. (2016). What do financial intermediaries do? *Journal of Banking & Finance*, 25(3), 271–294.
- Brown, K. & Reilly, F. (2019). *Analysis of Investments and Management of Portfolios*, 9th Edition. South Western CENGAGE Learning. Canada

- Burns, N. & Burns, S. (2008). *The Practice of Nursing Research: Conduct, Critique and Utilization*: 5th Edition: St Louis, Elsevier Saunders
- Cooper, R., & Schindler, S. (2014). *Business research methods*. New York: Mc Grawhill
- Deloitte. (2016). *Africa Private Equity Confidence Survey*.
- Elbannah, M. (2015). Capital Asset Pricing Model: An Overview of the Theory. *International Journal of Economics and Finance*.
- Gachenga, N. U. J. (2022). *Relationship Between Investment Decisions and Liquidity of Farmers Based Deposit Taking Savings and Credit Co-Operatives in Kenya* (Doctoral dissertation, The Co-operative University of Kenya).
- Hlavac, J. (2016). Financial performance of the Czech private pension scheme: Its current position and the comparison with other CEE countries. (9/2021).
- Keli, K. (2021). *Effect of Real Estate Investments on Financial Performance of Pension Funds in Kenya* (Doctoral dissertation, University of Nairobi).
- Khan, J. A. (2008). *Research methodology*. New Delhi. APH Publishing Corporation
- Kigen, A. K. (2016). *Effect of Fund Size on the financial performance of Pension Funds in Kenya* (Doctoral dissertation, KCA University).
- Kong, D., Xiao, T., & Liu, S. (2020). Asymmetric information, firm investment and stock prices. *China Finance Review International*, 1(1), 6-33
- Lin, Y. T., & Nienhaus, M. (2015). The non-diversifiable risk of financial reporting system: Evidence from the German market. *Advances in Accounting*, 31(2), 197-208

- Markowitz, H. (1952). Portfolio Selection. *The Journal of Finance*, 7(1), 77-91.
- Nzuve, I. (2016). *Financial performance measurement of manufacturing small and medium enterprises in Pretoria: A multiple exploratory case study*. Unpublished Project. University Of South Africa
- OECD. (2016). *Pension at a Glance: 2012, Retirement Income Systems in OECD Counties*. Retrieved from OECD.
- Ogum, E., & Jagongo, A. (2022). Investment Decisions and Financial Performance of Deposit Taking Savings and Credit Co-Operative Societies in Nairobi City County, Kenya. *International Journal of Current Aspects in Finance, Banking and Accounting*, 4(1), 72-90.
- Osewe, L. A. (2020). *Effect of Portfolio Diversification on Financial Performance of Investment Firms Listed at the Nairobi Securities Exchange, Kenya* (Doctoral dissertation, University of Nairobi).
- Quaicoe, A., & Eleke-Aboagye, P. Q. (2021). Behavioral factors affecting investment decision-making in bank stocks on the Ghana stock exchange. *Qualitative Research in Financial Markets*, 13(4), 425-439.
- Rehan, M., Alvi, J., Javed, L., & Saleem, B. (2021). Impact of behavioral factors in making investment decisions and performance: Evidence from Pakistan Stock Exchange. *Market Forces*, 16(1), 22-22.
- Reilly, F. K., & Brown, K. C. (2012). *Investment Analysis and Portfolio Management, 9th Edition*. New York: John Wiley and Sons.

- Ross, S. A. (1976). *The arbitrage pricing theory approach to strategic portfolio planning*. Macmillan Publishers.
- Sharpe, W. (1964). Adaptive asset allocation policies. *Financial Analysts Journal*, 66(3), 45- 59.
- Steve, L.& Chris J. (2016). *Corporate Finance, Theory & Practice*. 12th ed. Boulevard: South-Western Cengage Learning.
- Tewolde, M. H. (2018). Investment decisions in a firm as the part of business financial decision system. *Annales Universitatis Apulensis Series Oeconomica*, 1(10), 286-29
- Virlics, A. (2013). Investment decision making and risk, *Procedia Economics and Finance*, 6(1), 169 – 177
- Wang, F., Zhang, R., Ahmed, F., & Shah, S. M. M. (2022). Impact of investment behaviour on financial markets during COVID-19: A case of UK. *Economic Research-Ekonomska Istraživanja*, 35(1), 2273-2291.
- Wanyonyi, S. (2020). *Effect of selected macroeconomic factors on financial performance of unit trusts in Kenya* (Doctoral dissertation, University of Nairobi).

APPENDICES

Appendix I: Research Data

Firm ID	Year	ROI	Real estate	Govt securities	Fixed deposit	Shares	Fund liquidity	Fund size
1	2017	0.0826	6.7534	6.3019	8.1741	7.7425	0.7526	8.2162
1	2018	0.1139	6.9246	6.1457	7.9277	8.0702	0.7788	8.2177
1	2019	0.1465	6.8090	6.0191	7.2248	8.3466	0.9003	8.2509
1	2020	0.1945	6.6412	5.8371	8.4968	8.6456	1.2190	8.2695
1	2021	0.1736	6.3648	5.7469	7.7089	8.5546	0.7812	8.3168
2	2017	0.2410	6.3261	5.6270	6.7250	8.9167	1.5348	8.3379
2	2018	0.1590	6.6970	5.3740	6.8373	8.5748	1.2537	8.4239
2	2019	0.0644	6.4536	5.4209	8.1937	7.6739	1.8550	8.4141
2	2020	0.0604	6.4151	5.4217	8.2925	7.7737	1.6321	8.4557
2	2021	0.0310	6.5889	5.3781	8.0558	7.1144	3.2957	8.4859
3	2017	0.0279	7.0397	5.4126	6.3936	7.1572	0.6206	8.2067
3	2018	0.0248	7.0842	5.5978	7.4804	6.8996	0.6118	8.2879
3	2019	-0.0139	6.8352	5.7740	7.1229	7.7267	1.1138	8.3768
3	2020	0.0019	6.6254	5.8853	8.5073	7.7630	1.0363	8.4253
3	2021	-0.1050	6.5013	5.9063	8.1708	7.7312	1.5372	8.4516
4	2017	0.0840	6.4409	5.9986	8.1798	7.7801	1.4935	7.5576
4	2018	0.1331	6.7274	6.1176	7.1365	7.8368	1.1013	7.6198
4	2019	0.1709	6.4998	5.9353	6.3716	7.8478	0.7508	7.5878
4	2020	0.0574	6.4983	6.0461	8.1873	7.8988	0.8794	7.5652
4	2021	0.1230	6.4846	5.9460	7.0859	7.9114	1.1345	7.5406
5	2017	0.0887	6.5191	6.3176	8.4478	7.7092	0.5897	8.0577
5	2018	0.0937	6.5147	6.3186	8.0693	7.7060	0.6198	8.1238
5	2019	0.0986	6.5191	6.3321	6.7250	7.7092	0.5994	8.1659
5	2020	0.0999	6.3596	6.4957	8.3070	7.3956	0.7079	8.2286
5	2021	0.1514	6.6606	5.7372	7.1000	7.8229	0.5240	8.3287
6	2017	0.0609	6.9565	6.0416	5.9135	7.8672	1.8238	8.5767
6	2018	0.2966	6.6134	5.8811	8.4114	7.9324	1.5769	8.6278
6	2019	0.2323	6.5539	5.6185	8.3784	7.9417	1.1119	8.6514
6	2020	0.2298	6.7382	5.5269	6.8211	7.9774	1.2749	8.6986
6	2021	0.1657	6.6067	5.4140	8.3306	8.0023	1.3443	8.7303
7	2017	0.0105	6.5410	6.1917	5.9506	8.1297	0.9830	8.0019
7	2018	0.0572	6.4568	6.1127	8.2215	8.1234	1.0618	8.0506
7	2019	0.0125	6.7105	6.1461	8.1113	8.1336	1.7404	8.0485
7	2020	0.0912	6.6267	5.3416	7.8895	8.0376	1.2006	8.1428
7	2021	-0.0185	7.0003	5.4274	6.9518	8.0361	0.9407	8.1599
8	2017	0.1863	6.3386	5.7233	8.3834	8.1430	1.3215	7.9815

Firm ID	Year	ROI	Real estate	Govt securities	Fixed deposit	Shares	Fund liquidity	Fund size
8	2018	0.0950	6.1420	5.6772	7.5082	8.1710	0.7600	8.0263
8	2019	0.1526	6.4265	5.6478	7.2896	8.1919	0.6879	8.0767
8	2020	0.1072	6.3561	5.6537	8.4379	8.1991	0.9920	8.1894
8	2021	-0.0096	6.3279	5.6339	7.9568	8.1894	1.0697	8.2824
9	2017	0.0175	6.4457	5.6871	8.2761	6.4486	0.2677	8.0201
9	2018	0.0041	6.0162	5.2371	8.4109	5.0869	0.3491	8.0438
9	2019	0.1415	6.7696	5.0918	7.8427	7.8535	0.3323	7.9725
9	2020	0.1548	6.6464	5.3793	8.2769	7.8926	0.2661	7.9744
9	2021	0.1681	4.3175	5.6023	6.4052	8.0405	0.3119	7.9950
10	2017	0.0296	6.1527	5.6305	7.9902	6.7854	1.1178	8.1877
10	2018	0.0382	6.1903	5.6033	7.2834	7.0434	1.1099	8.2356
10	2019	0.0419	6.3733	5.6095	7.7035	7.1413	0.9898	8.2709
10	2020	-0.0275	6.2672	5.5803	8.0753	7.9992	0.8495	8.3291
10	2021	0.0570	6.3767	5.6686	8.3212	8.0337	1.0610	8.3508
11	2017	-0.0402	6.0776	5.6870	4.0943	8.0244	0.8533	8.3898
11	2018	0.0415	5.5947	5.0182	8.1020	8.0254	0.9362	8.4802
11	2019	0.2296	6.5681	5.8543	8.3973	8.0996	0.1414	8.5279
11	2020	0.2144	6.3297	5.6767	7.3185	8.1220	0.1037	8.5719
11	2021	0.1606	6.3886	5.7598	7.7017	8.1540	1.1535	8.6261
12	2017	0.1440	6.2519	5.5980	8.1964	8.1715	0.2616	7.2060
12	2018	0.1219	6.2672	5.4353	7.4116	8.1820	0.2229	7.1988
12	2019	0.0957	6.4457	5.4353	7.0397	8.1820	0.2479	7.2236
12	2020	0.2794	6.5206	5.6499	8.2332	8.1820	0.2867	7.3186
12	2021	0.2788	6.4599	5.4820	7.8800	8.1820	0.2803	7.3549
13	2017	0.1096	8.0294	5.9142	8.2968	7.5719	0.8533	7.7230
13	2018	0.0593	6.8178	6.1389	8.2605	7.6545	0.9362	7.6766
13	2019	0.2438	6.9373	6.1602	8.1736	7.7744	1.1535	7.5374
13	2020	0.1236	7.0842	6.1906	8.4996	7.8258	0.5988	7.4993
13	2021	0.1261	7.0800	6.3384	8.2475	7.9076	0.8328	7.4789
14	2017	0.1169	6.8607	6.3794	7.8372	7.9712	0.9120	7.6874
14	2018	0.0870	6.7845	6.3846	8.4496	8.0027	1.0407	7.7237
14	2019	0.0850	6.7673	6.3937	7.1670	8.0396	0.6973	7.5611
14	2020	0.0769	6.6884	6.4843	8.5082	8.1074	1.0418	7.6254
14	2021	0.0621	6.6438	6.4367	8.3848	8.1120	0.9047	7.6188
15	2017	0.0665	6.6080	6.4570	7.6353	8.1456	0.5927	8.2162
15	2018	0.0515	6.7845	6.4809	8.3549	8.1742	1.1535	8.2177
15	2019	0.0227	6.7811	6.6739	7.9919	7.7281	0.6937	8.2509
15	2020	0.0227	6.9137	6.6186	7.4787	7.7305	0.7149	8.2695
15	2021	-0.2837	6.8352	6.5795	7.9150	7.7939	0.5761	8.3168
16	2017	0.0015	6.8309	6.5619	7.2356	7.7842	1.1737	7.3921

Firm ID	Year	ROI	Real estate	Govt securities	Fixed deposit	Shares	Fund liquidity	Fund size
16	2018	0.0337	6.8090	6.4479	8.4386	7.7940	0.9834	7.3912
16	2019	-0.1402	6.9324	6.6856	8.3533	7.7848	1.3268	7.4269
16	2020	-0.0819	6.8112	6.5031	8.4143	7.8263	1.1912	7.4953
16	2021	-0.3061	7.0255	6.7826	7.9266	7.7667	1.2957	7.6089
17	2017	0.1685	6.7020	6.4381	8.3889	7.7552	2.6058	7.7088
17	2018	-0.2919	6.4200	5.7318	7.9738	7.5751	1.9871	7.7925
17	2019	-0.2136	7.2049	6.1145	8.2153	7.5450	1.7572	7.7958
17	2020	-0.0041	7.1213	6.2860	8.2576	7.5942	1.5740	7.8087
17	2021	-0.0041	6.5511	6.2860	8.4249	7.5942	1.5548	7.7387
18	2017	-0.1179	6.2126	7.3953	8.3875	7.5942	1.3073	8.1416
18	2018	-0.2618	6.7696	5.5680	8.3516	7.5942	1.2215	8.2161
18	2019	0.1030	7.3556	5.4419	6.5043	7.9498	2.6804	8.2482
18	2020	0.1341	7.3072	5.7875	7.4883	7.9881	2.2625	8.2873
18	2021	0.0918	7.7115	5.9054	5.6276	8.0024	0.6313	8.2934
19	2017	-0.0045	7.8160	6.0886	8.4968	8.0089	1.2513	7.0270
19	2018	0.0527	7.2759	5.9390	7.9906	7.3585	1.0568	6.9998
19	2019	0.0538	6.7441	5.7228	8.4268	7.3744	1.2442	6.9773
19	2020	0.0737	6.5568	5.4827	7.0825	7.6841	0.9423	6.9368
19	2021	0.0201	6.8997	5.6959	5.7746	6.3928	1.0481	6.9339
20	2017	0.0475	6.5103	5.6351	8.2268	7.2529	1.0131	6.8581
20	2018	0.0879	6.4846	5.7545	7.2116	7.8850	1.1560	6.8614
20	2019	0.1244	6.5043	5.5968	8.5067	8.2478	1.5957	6.9607
20	2020	0.0180	6.6529	5.8361	7.6746	6.3245	1.3150	7.0390
20	2021	0.0180	6.7370	5.5083	7.0085	6.5721	1.0811	7.1179
21	2017	0.1605	6.7429	5.5649	7.5989	8.7589	1.1535	8.3379
21	2018	0.1071	6.8068	5.6185	8.4342	8.3403	0.7844	8.4239
21	2019	-0.0045	6.4329	6.0203	8.5218	8.0262	1.0194	8.4141
21	2020	-0.0225	6.6134	6.2731	6.4862	8.0577	0.8533	8.4557
21	2021	0.0400	6.6425	6.1113	7.0423	8.0397	0.9362	8.4859
22	2017	0.0397	6.5568	5.9614	7.3550	8.0249	1.1157	8.3379
22	2018	0.0421	6.4378	5.9300	7.5694	8.0317	0.0074	8.4239
22	2019	0.1185	6.3226	5.9310	8.0398	8.0789	1.2995	6.7611
22	2020	0.0468	6.3474	6.0746	8.3168	8.1075	1.1102	6.7943
22	2021	0.0662	6.2519	5.8160	8.4209	8.0903	0.8008	8.2879
23	2017	0.1105	6.1377	5.8407	7.3330	8.1121	0.9872	8.2067
23	2018	0.0800	6.2653	5.9340	7.0750	8.1327	0.7481	8.2879
23	2019	0.0468	6.3986	6.1279	6.1612	8.1776	0.7565	8.3768
23	2020	0.0759	6.6227	6.0466	6.4922	8.1595	0.7018	8.4253
23	2021	0.2283	5.8579	5.9581	8.1713	8.3291	0.6975	8.4516
24	2017	0.2214	5.9108	6.1117	8.3719	8.3337	0.6772	8.4859

Firm ID	Year	ROI	Real estate	Govt securities	Fixed deposit	Shares	Fund liquidity	Fund size
24	2018	0.3650	5.9054	6.2448	8.4826	8.3377	0.9922	8.3379
24	2019	-0.0561	6.8501	6.8088	8.2958	7.6918	0.8564	8.4239
24	2020	0.0168	6.9893	6.5125	7.5616	7.5972	0.3208	6.0724
24	2021	0.1243	7.1778	6.3791	8.2472	7.6003	1.1535	6.5049

