

**DETERMINANTS OF GROWTH OF MUTUAL FUND
INSTITUTIONS IN NAIROBI SECURITIES
EXCHANGE IN KENYA**

ISAAC OTIENDE OJUNG'A

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**Determinants of Growth of Mutual Fund Institutions in Nairobi
Securities Exchange in Kenya**

Isaac Otiende Ojung'a

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

Signature: Date:

Isaac Otiende Ojung'a

This thesis has been submitted for examination with our approval as University Supervisors.

Signature: Date:

Prof. Gregory Simiyu Namusonge, PhD

JKUAT, Kenya

Signature: Date:

Prof. Maurice Sakwa, PhD

JKUAT, Kenya

DEDICATION

To my family for their unrelenting support and encouragement. To my mother Nyar Ajowi and my late Uncle, Kola, for inculcating the virtue of hard work in me. Special dedication to my daughter Valery for keeping the fire to complete this journey burning.

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ABBREVIATIONS AND ACRONYMS

AMC:	Asset Management Company
AMP:	Austrian Market Process
AUM:	Assets under Management
ANOVA:	Analysis of Variances
BLUE:	Best Linear Unbiased Estimator
CAPM:	Capital Asset Pricing Model
CIS:	Collective Investment Schemes
CMA:	Capital market authority
FMC:	Fund Management Company
ICI:	Investment Company Institute
MFI:	Mutual Fund Industry
MPT:	Modern Portfolio Theory
NAV:	Net Assets Value
NSE:	Nairobi Securities Exchange
PMPT:	Post Modern Portfolio Theory
RBA:	Retirements Benefits Authority
R & D:	Research and Development.

SPSS: Statistical Package for Social Scientists

VIF: Variance-Inflation Factor

DEFINITION OF TERMS

Financial Market Liquidity:	The ability of the financial market to facilitate large volumes of trade in financial securities without causing excessive price movements, while still reflecting a steady and fair market price (Wyman, 2016)
Growth:	Change in size or magnitude of a firm from one period of time to another. (Kavale, Mugambi & Namusonge, 2016).
Innovation:	The ability to create new products/services or changes in Service/product lines as well as implementing new procedures (Namusonge & Muturi, 2016).
Mutual Fund:	A financial institution that pools and professionally manages money from many investors. (Nyanamba <i>et al.</i> , 2015).
Mutual fund scheme:	This refers to the different categories of mutual fund options, that is, Open or Close-end scheme (Sarita & Meenakshi, 2012).
Net Assets Value:	The current market worth of a mutual fund scheme and an is indicator of mutual fund performance (Vyas, 2012).
Perception:	The interpretation of complex sensory information in order to create an understanding of the presented information (Sindhu &.Rajitha, 2014)
Portfolio diversification:	The act of investing in various investments in order to eliminate the unsystematic risk
P-value	A measure of how significant the sample results are; the smallest value of α for which H_0 can be rejected (Sekaran & Bougie , 2015).
Regulatory framework	A framework that supports, safeguards, monitors, and ensures financial stability through providing an enabling, fair financial services sector environment (Okioga, 2013)

Validity

This is an indication of the extent to which an instrument measures what we think it is supposed to be measuring and also measures the truth or accuracy of a research instrument (Beaglehole, Bonita, & Kjellstrom, 2006).

ABSTRACT

Kenya's recent external borrowing is an indictment on the country's financial sector. The borrowing shows that the financial market was not able to avail the needed funds locally. This study aims to improve local mobilization of funds so as to meet local financial needs. Mutual fund institutions was identified as a key institution in funds mobilization. The purpose of this study was to investigate the drivers of growth of mutual fund institutions in Kenya. The study was guided by five specific objectives namely: investors' perception, financial market liquidity, portfolio diversification, regulatory framework and financial innovation. These variables were expected to positively impact on the growth of Mutual fund institutions. The study variables were underpinned by four theories namely: the theory of modern portfolio, agency theory, liquidity theory and financial innovation theory. The study targeted 61 funds/ units operating under 18 listed fund institution in 2018. The study adopted cross-sectional survey design for obtaining data. The design was preferred due to its ability to combine quantitative and qualitative methods. Both secondary data and primary data were collected during the study. The typed questionnaires were used as the data collection instrument for primary data while financial statements provided the secondary data. Stratified random sampling was used to ensure that each fund type was proportionately represented in the study. Data collected was subjected Cronbach's alpha coefficient test for reliability while validity was tested through pilot study for content and factor analysis for construct validity. The researcher tested for Linearity, normality and homoscedasticity to ensure that none of these affects the outcome. Data analysis and interpretation was based on descriptive statistics and measures of dispersion as well as inferential statistics; bivariate and multivariate regression analysis, Pearson correlation, factor analysis and analysis of variance were employed. Multi-linear regression model was used in explaining the influence of identified drivers (investors' perception, financial market liquidity, portfolio diversification, regulatory framework and financial innovation) and growth of mutual fund institutions in Kenya. The study results indicated that financial market liquidity, and regulatory framework all had statistically significant influence on growth of mutual funds linked with assets under management while investors' perception and portfolio diversification had a fifty –fifty influence on growth of mutual funds institutions linked with asset under management. Investors' perception and financial market liquidity had statistically significant influence on growth of mutual fund institutions linked with return on investment, portfolio diversification and regulatory framework had mixed results while financial innovation had no significant influence on growth of mutual fund institutions linked with return on investments. Financial innovation did not have a statistical influence on growth of mutual funds linked with assets under management. The overall findings are that all identified independent variables except Financial Market Liquidity had statistically significant influence on growth of mutual fund institutions. The study benefited all financial market players by identifying the variables that should be enhanced for the growth of mutual fund institutions. Researcher can also identified other areas of study with regard to growth of mutual fund institutions. Contrary to the widely held view that financial market

liquidity enhances growth of financial institutions, this study found that financial market liquidity does not significantly influence growth of mutual fund institutions. The study brought in the construct of market resilience which was an extension of the generally used resilience. It included market immediacy, market depth and market resilience.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Mutual fund institutions are types of financial intermediaries linking surplus spending units to deficit spending units (Smita & Rakesh, 2016). Mutual fund industry was initiated by a European Dutch merchant Adriaan Van Ketwich in 1774 in response to financial crisis of 1772 to 1773. His motivation was to provide diversification for small investors who suffered financial losses due to collapse of Banks (Nyanamba *et al.*, 3015).

Mutual funds institutions currently form an important part of every county's Capital market sector and it has become one of the biggest contributors in the financial sector (Oluwole, 2013). The word 'mutual' denotes something done collectively by a group of people with the common understanding among themselves and objective of investing. Fund is used in monetary terms referring to collecting money from the members for a common objective like earning profits with joint efforts (Seckhar, 2013).

Mutual fund institutions pool money from many investors and invest the money in stocks, bonds, short-term money-market instruments, other securities or assets, or some combination of these investments (Muthaura, 2013; Agrawl & Jain, 013).

Firms' growth is completely intertwined with firms' actual existence. Throughout their existence, firms have to grow consistently in order to maintain their competitive position within the business environment in which their competitors may be growing at a faster pace (Arkolakis, pagageorgia & Timonshenko, 2015). Although part of the extant literature opined that growth is not a universal objective for all firms, the ability of firms to grow is crucial, because studies have shown that firms with low or negative growth rates are more likely to fail at infancy (Burrows, 2013). What is perhaps more controversial and surprising is that recent studies have shown that the

probability of larger and more mature firms to grow even bigger is much higher than the newly founded entrepreneurial startups (Marina & Oleg 2016). Growth of Corporation leads to higher profits and increase in shareholders' value, due to economies of scale as well as leverages, which is the ultimate aim of every corporate body. The study was guided by five specific objectives namely: investors' perception, financial market liquidity, portfolio diversification, regulatory framework and financial innovation.

1.1.1 Global Perspective of growth of mutual fund institutions

Historians do not concur on the origins of mutual fund institutions (Geeta & Hooda, 2017). Some say that the first institution was launched in Netherlands in 1822 by King William. Some scholars attribute the birth of mutual fund institutions to a Dutch merchant named Adriaan van Ketwisch whose investment trust created in 1774 is believed to have given the king the idea. Ketwisch suggested that diversification of investments portfolios would increase the appeal to small investors with minimal capital. The word "Eendragt Maakt" translates to "unity creates strength" was developed to emphasize the need for coming together (Pandow, 2017). The next wave of near-mutual fund institutions, included an investment trust was came into existence in Switzerland in the 1880s. The concept of pooling resources and spreading risk took root in Great Britain and France before eventually gaining popularity in the United States in the 1890s (Rodgers, Ying & Amitabh, 2012). Mutual fund institutions entered United States of America through closed-end investment and was immediately followed by Open-end varieties during the first quarter of the nineteenth century in Boston. The Institutions experienced astronomical growth in the 1920s before suffering a major setback from mismanagement and fraud as well as from the stock market crash of 1929 (Mian & Nawaz, 2010). These setbacks slowed down their growth between 1930 and 1950 but there was an upsurge of interest in equity funds during the stock market boom of the early and mid-1960s. This was reversed in the 1970s following the first oil crisis and the poor performance of equity markets (Brian & Daniel, 2010). The industry suffered another setback in the late 1960s when the International Overseas service

company collapsed causing a serious loss of investors' confidence in Mutual fund institutions (Javier, 2013).

Recent studies, for example Pandow (2017), showed that Mutual fund industry experienced a spectacular growth over the last few decades. The total assets under management for the global industry at the end of 2016 stood at over US\$40.4 trillion, making it one of the biggest single financial industry in the world (Investment Company, 2017). United States of America has the largest mutual fund industry, accounting for US\$21.1 trillion, and spread across more than 56.2 million households (44%) averaging to \$375,000 investment per household. Household demand for mutual funds has now surpassed that of directly held stocks and bonds. These figures emphasize the significant role played by mutual funds institutions in today's financial system; not only do mutual funds have an impact on household wealth management, but they also contribute to the smooth working of capital markets. Mutual fund industry provide investment capital in securities markets around the globe, and are among the largest groups of investors in U.S. commercial paper. The United Kingdom's Mutual fund industry is the second largest in the world, accounting for £14.343 trillion in assets under management at the end of 2016, being managed by over 8,000 mutual fund institutions. The German mutual fund market is relatively small, but it also experienced very fast development from 1980 to 2016 (Investment Company, 2017).

Mutual fund schemes entered Indian financial market in 1964 through Unit trust of India (Argawal & Mizra, 2017). Unit Trust of India (UTI) launched Unit Scheme in 1964 (US-64) followed by Master Share in 1986. Mutual fund industry experienced faster acceptance in India as a result of State intervention. Indian government sponsored several mutual fund institutions and encouraged small size investors to channel their investment through state owned fund institutions in 1987. This position was, however, changed in 1993, when the Indian government allowed private sector players, both Indian and foreigners to operate mutual fund institutions. In 1996, the Indian government formulated a comprehensive regulatory framework under Securities and Exchange Board of India, (SEBI) to regulate the establishment and

operations of mutual funds. By 1961, all the mutual funds institutions in India were brought under its framework and provided a level playing field to them. The year 2002 witnessed the splitting up of UTI into two separate entities: UTI-I which included US-64 and UTI-II to manage net asset value (NAV)-based schemes. In March 2016, 42 mutual fund houses operated in India (33 private and 9 public) offering 2,420 schemes with assets under management (AUM) of US\$ 189.66 billion as on 31 March 2016. The booming mutual fund industry in India caught the attention of academicians, researchers, policymakers and investors, both retail and institutional (Mishkin, 2017). The academic world has remained true to its inquisitive nature by questioning this growth and its underlying reasons. A number of studies conducted in this area not only analysed the performance of mutual fund institutions but also tried to identify funds characteristics responsible for their performance. Empirical evidence opined that fund-specific characteristics such as the size of fund, management fee and age of fund have significant influence on performance of the fund (Mansoor, Bhatti & Ariff, 2015). On the other hand, some studies have concentrated on managerial characteristics such as education, age and experience of managers in determining fund performance (Huang & Shi, 2013). Other studies have provided evidence that other important fund attributes, for instance, the size of fund, growth in size of fund, Net Asset Value and portfolio turnover impacted on the performance of funds (Low, 2012).

In the United States of America, mutual funds entered the financial market through Money market fund in 1970s. The entry was prompted by restrictive regulatory framework which barred US banks from paying competitive interest rates on their retail deposits at a time when high inflation was pushing market rates to very high levels compared to the ceilings imposed on banks (Fereira, Keswani & Ramos 2013). The US mutual funds are structured as corporations, or sometimes as trusts. They have to be incorporated as either corporations or trusts with the securities Exchange commission (SEC) and are often overseen by a board of directors (if organized as a corporation) or a board of trustees (if organized as a trust) (Lathashri, Renuk & Lashmi, 2014). The widening differences between commercial bank rates as they attempted to rebuild their capital following their disastrous results of the late 1980s is

believed to have provided an early stimulus to equity funds (Ahmad *et al.*, 2015). As the gap between returns on bank deposits and returns on equity funds widened considerably, investors showed an increasing preference for equity funds (Teerapan, Ranko & Theobald, 2014). The increased demand for mutual funds reflected a broader pickup in demand for financial assets, buoyed by rising equity prices, low and stable interest rates, and subdued inflation (Warburton, 2014). The response of the industry, both by expanding the number and variety of mutual funds and by lowering the cost of acquiring and holding mutual funds, was another contributing factor (Tang, Wang & Xu, 2012).

In Europe and other regions, Mutual fund institutions grew at a subdued rate due to equity markets being less well developed outside English-speaking American countries and the operating costs of mutual funds continued to be relatively high. Government preference for long-term bonds, shown by provision of incentives, enabled bond fund institutions to experienced steady growth as compared to equity funds (Burrows, 2013). Growth rates have varied considerably across countries and regions in Europe. Most European countries, where mutual funds were already well developed in the early 1990s, registered growth rates of between 20 and 30 per cent per year. Some countries, such as Greece and Italy, experienced very rapid growth, while others, most notably France, recorded low growth (Lai & Lau, 2010). Among middle-income countries, like Hungary, the growth of mutual funds has been very high from low starting points (Lang & Schafer, 2013).

A unique feature of the European market is the growing strength of mutual funds in several countries with unfunded social security systems unlike the Indian and American where the Government either directly or indirectly promoted mutual fund institutions (Suppa-aim, 2010). Some of these countries have their growth of mutual funds being based on a strong growth of their life insurance industries. For instance, French life insurance assets exceeded 55 percent of Gross Domestic Product (GDP) in 1997, a level that is much higher than in Canada, Germany or the United States and close to the levels prevailing in the Netherlands, Switzerland and the United Kingdom (Sarita & Meanakshi, 2012). This provides indirect evidence that the

saving public was responding to various tax incentives to accumulate long-term savings as a defense against the likely future inability of their national social security systems to honor promised benefits in full.

Among English-speaking American countries, which generally have a better developed security markets and common law traditions, (Australia, New Zealand and South Africa) are notable for their relatively high growth of mutual fund industries with total assets around 10 percent of GDP (Burrows, 2013). The presence of a well-developed contractual savings industry in South Africa and the continuing credibility of tax-financed universal pensions in Australia and New Zealand are clearly major players in growth of mutual funds. As already noted, inclusion of the compulsory pension funds, which are mostly based on Defined Compensation (DC) plans, causes a very large increase in the reported Australian statistics (Lang & Schafer, 2013).

The total number of funds incorporated worldwide reached 123,484 as at end March 2017, an increase of 1.6 percent when compared with end 2016. About 30.1 percent were registered as equity funds, followed by mixed funds and bond funds at 27.5 percent and 16.9 percent respectively. Moreover, real estate funds had a share of 2.4 percent while money market funds had a share of 2.2 percent. In terms of net assets, funds registered in major investment fund jurisdictions, namely Ireland, the UK, Luxembourg, France and Germany, have experienced growth during the first quarter of 2017. Funds registered in Ireland and the UK expanded by 5.8 percent and 5.6 percent respectively while Luxembourg, France and Germany saw their net assets expanding by 5.5 percent, 5.4 percent and 2.7 percent respectively. Professional Investor Funds saw their net asset value declining by €0.64 billion when compared to the previous end year to stand at €4.62 billion at the end of June 2017. During the first half of 2017, Alternative Investment Funds continued to expand to record a net asset value of €2.53 billion. This represents an increase of €0.33 billion when compared with end 2016 (Parida, 2018).

1.1.2 Regional growth of Mutual Funds Institutions

The Africa's mutual fund institutions totaled to around 951 unit trust funds across approximately 42 management companies as at 30 June 2012 (Nyanamba *et al.*, 2015). The most recent Alexander Forbes survey of retirement fund investment managers' showed total assets under management in South Africa was R3.3 trillion as at 30 June 2012, compared to R3.1 trillion as at 30 June 2011, representing growth of under 6%. According to the World Bank global economic prospects June 2013 report, "on aggregate the region's asset managers grew at 4.4% in 2012. The report continued that the region is expected to record 4.9% growth in 2013, 5.2% in 2014 and 5.4% in 2015 (KPMG, 2013). Africa's biggest and most developed mutual fund industry is found in South Africa. Mutual fund institutions came to South Africa in June 1965 via a unit trust (Sage Fund) The fund started with approximately R600 000 under management. Since then, there has been huge growth in the unit trust (mutual fund) industry in South Africa so that by the end of 2016, there were 704 South African domestic unit trust (mutual fund) funds available, with a market value of USD 147 billion (Price water house, 2016).

The concept of mutual funds entered Nigerian Financial market in 1990 (Lutwana, 2010). The concept is still relatively new to many potential investors in the country, though it has been around for over 20 years. Nigerian investors in mutual funds are so far on a small scale, as expected, with a value of a few billions of Naira compared with the situation in the United States of America where there are thousands of mutual funds that meet their investment objectives. Awareness of mutual funds in Nigeria is gradually building up following the emergence of more mutual funds and unit trusts. In Uganda, Mutual funds were introduced in 2003 with the purpose of enabling investors to participate in the capital markets through the relatively seed money required to invest in mutual funds. In Morocco and Tunisia, where balanced funds are the most popular, mutual funds grew at spectacular rates, although from non-existent bases (Saudi & Cherkaoui, 2015).

1.1.3 National Growth of Mutual Fund Institutions

Kenya's mutual fund industry is very young, having started with the passage of the Capital Markets Amendment Act 2000, which brought into picture specific investment vehicles, particularly mutual funds. The enactment of the act was prompted by the desire to have many Kenyans participated in the financial market. Despite this good gesture, enactment of the Act, the mutual fund industry did not take off until December 2001 when African Alliance Kenya was licensed by the Capital Markets Authority (CMA) to set up the very first regulated mutual fund institution. It currently offers Money Market Fund, Fixed Income, Managed Retirement Fund and Equity Fund investment alternatives to both institutional and individual investors. The trustee and custodian of the funds is Stanbic Bank Kenya Limited, auditors are KPMG Kenya, and the Fund Administrators are African Alliance Kenya Management Company Limited (Capital Market Authority, 2012). This was later followed by Old Mutual Asset Managers (OMAM) Kenya Limited that launched both the Old Mutual Equity Fund and the Old Mutual Money Market Fund that started operations on 1st April 2003. The trustee and custodian of the funds is Kenya Commercial Bank Limited, auditors are Price water house Coopers Kenya, and the Fund Manager is Old Mutual Investment Services Kenya Limited.

Old Mutual Asset Management Kenya was established in 2007 and started operations in April 2008 (Dancan, 2016). The latest entrant to the mutual fund industry is the British American Investment Group which in July 2005 launched an investment advisory and asset management company known as British American Asset Managers that offers a comprehensive range of domestic investment products. These include an Equity Fund, Balanced Fund, Money Market Fund and an Income Fund (Nyanamba *et al.*, 2015). The trustee and custodian of the funds is Kenya Commercial Bank Limited, auditors are Price water house Coopers Kenya, and the Fund Manager is Britam Asset Managers Company. As at April 2015, the total assets under management were over Kshs. 49 billion and of this, the Equity fund that started operations on 1st April 2003 had an approximate net asset value of Kshs 20.0 billion (Dawe, 2016).

Kenya's financial markets offer a variety of investment products in the form of shares, bonds, unit trusts and money market products. The investor chooses where to invest his money based on his/her financial goals, amount to be invested, rate of returns, risk level, tax treatment of the returns, awareness and time frame. Money market products have grown in acceptance and popularity in recent years (Mwaura, Dawe & Porhariyal, 2014). This is evidenced by the growth in the number of approved money markets products from virtually zero in 2008 to 11 in 2016. Money market products are the small investor's answer to achieving wide investment diversification without the need of prohibitive sums of money. As a market becomes sophisticated and more volatile, money market products become safe havens for less sophisticated and less capitalized, conservative individuals in the market place. According to the CMA, Regulation of money market products, only money market products that are approved by the Capital Markets Authority may be offered for sale to the Kenyan public. Such schemes must comply with the Capital Markets Act Cap 485 A and also the Capital Markets (Collective Investment Schemes) Regulations, 2011. An approved fund can easily be identified by the cover of its prospectus which contains a statement that a copy of the prospectus has been lodged and approved by the Capital Markets Authority (2011). Although there are laws and guidelines to aid investor protection, it is ultimately investor's responsibility to evaluate the suitability, profitability and viability of an investment. An investor must read the information which is required to be provided in the prospectus and make the decision whether to invest or not, based on their own circumstance and attitude to risk.

In 2011, the Capital Markets (Collective Investment Schemes) Regulations, were enacted to provide a framework for the regulation of Collective Investment Schemes which included; Pooled funds where Investors contributions are pooled to purchase financial securities and the investors are the owners of the Fund's assets. Since 2003, investors have invested over sh. 10 billion (US\$ 145 million) in unit trusts in Kenya. Recent Performance of Kenya's Investment Markets indicates that Kenya's capital and equity markets have continued to deepen and has posted attractive 10% returns over the last couple of years. During the period 2003 to 2016, investments in mutual

fund increased from sh. 10 billion to sh. 40 billion, a 4 fold increase in 13 years (Capital Markets Authority, 2017).

1.2 Statement of the Problem

Government's recent foreign borrowing shows that the local financial market cannot provide the much needed capital for industrial take-off. Foreign debts expose the nation to foreign exchange risks. Kenya's financial market has to improve her fund mobilization in order to meet the country's development aspirations. The need to improve funds mobilisation is also to meet Kenya's development plan christened vision 2030, which identifies financial mobilization as one of its flag post project for achieving middle class economy by 2030. Given the average income levels of Kenyan population, mutual fund institutions are seen as the best suited institutions to mobilise the much needed funds. This is because of fund-specific characteristics such as the small amount required to invest in mutual fund products, low management fee and portfolio turnover as suggested by Low, (2012); Mansor, Bhatti and Ariff (2015). Mutual fund products also provide avenue for managing regular market swings and black swan events which negatively affect market efficiency forcing investors to diversify their portfolios (Kishori & Kumar, 2016). This places mutual fund institutions at the center of resource mobilization, hence the need for a deliberate effort to cultivate growth of mutual fund institutions.

Kenya has experienced a phenomenal growth in mutual funds industry with net asset value increasing from zero in 2001 to 18 institutions with assets under management of sh. 49.5 Billion (USD 485 million) as at end of June 2016 (MFI 2017). This growth is not comparable to more developed Mutual Fund markets like republic of South Africa whose number of fund institutions was 705 with asset under management amounted to USD 147 billion (Price waterhouse coopers, 2016). This indicates that the Kenya mutual funds market can be improved. This growth prospect is the motivation for this study. This study sought to identify what really drives the growth of MFI's with a view to specifically enhance their growth prospects and

generally to improve the vibrancy of the financial market. The identified factors are expected to provide a conducive environment for growth of mutual fund institutions.

Plantier (2014), posited that strong and appropriate regulation, the presence of long-term mutual funds, good returns on financial market instruments and the development of defined contribution plan systems significantly influence growth of mutual fund institutions. Kimeu *et al.* (2016) revealed that Personal factors such as level of disposable income, personal investment objectives, education level, financial literacy and access to information, and age of investor were observed to influence retail investors' investments in unit trust. Arathy *et al.*, (2015) established that Tax benefits, high return, price and capital appreciation, market liquidity, diversification, risk and brand image are some of the major factors which the investors look into while investing in mutual funds in India. Akama, and Jagongo (2013) established that there was no agreement on the conduciveness of licensing requirements to the ease of entry and exit of mutual fund institutions. Okioga, (2013), Maina (2014) established that the laws and regulations were unduly bureaucratic and hindered innovation of mutual fund products, hence slowing down growth of Mutual fund institutions in Kenya. They also unearthed a large amount of information asymmetry between stock broker respondents and their mutual fund counterparts.

Dawe, Pokhariyal and Mwaura (2014) looked at the performance persistence of equity and blended mutual funds in Kenya. The study's objective was to establish persistence of funds' performance over the period 2006 to 2009. They established that the size of the fund is the main factor influencing the performance of mutual fund institutions. This is mostly because of economies of scale as well as both operating and financial leverages which results in a reduction in cost per unit of the fund. Dawe (2016) evaluated the importance of key factors that affect performance of collective investment schemes in Kenya and his study revealed that foreign investors' participation, online trading, and fund managers' experience, age of the fund and equity risk are the major influencers of performance of collective investment funds. Gitagia (2013), established that fund characteristics, behaviour of

mutual fund managers, stock-picking and timing abilities of managers as the factors affecting the performance of mutual funds.

The above analysis showed that most of the studies on growth of mutual fund institutions were in developed economies, which have different institutional arrangements, mainly with respect to their tax and legal issues on operations of mutual fund institutions as compared to Kenyan situation. The countries also differ in their social and cultural issues and even the levels of economic development. These differences is one of the reasons for this study as it aims to thoroughly look at the issue from the perspective of developing economies, especially within the context of sub-Saharan Africa. Studies done in Kenya have concentrated on performance of mutual funds and very few have looked at the growth prospects of MFI's. The few studies have also posted conflicting results as to what really drives growth prospects of MFI's. For example Namusonge and Muturi (2016) conclude that product diversification as a crucial factor determining profitability of mutual funds in Kenya, while Mwaura *et al.* (2014), established that risk, regulatory frame work and transaction costs are the major factors affecting the performance of mutual funds in Kenya. This study, therefore, intends to fill the gap by providing empirical analysis of the drivers of mutual fund institutions' growth. The finding would be instrumental in crafting policies that would enhance the growth prospects of mutual fund institutions.

1.3 Objectives of the Study

1.3.1 General objective

The general objective of this study is to evaluate the determinants of the growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya.

1.3.2 Specific objectives

The study was guided by five specific objectives namely to;

1. To establish the effect of Investors' perception on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya.
2. To investigate the effect of financial market liquidity on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya.
3. To assess the effect of portfolio diversification on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya.
4. To determine the effect of regulatory framework on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya.
5. To assess the effect of financial innovation on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya.

1.4 Research Questions

The study objectives shall be achieved by answering the following Questions:

1. What is the effect of investors' perception on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya?
2. What is the effect of financial market liquidity on the growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya?
3. What is the effect of portfolio diversification on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya?
4. What is the effect of regulatory framework on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya?
5. What is the impact of financial innovation on growth of Mutual funds institutions listed in Nairobi Securities Exchange in Kenya?

1.5 Research Hypotheses

The study will test the following null hypotheses;

H₀₁: There is no statistically significant effect of Investors' perception on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya.

H₀₂: There is no statistically significant effect of financial market liquidity on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya.

H₀₃: There is no statistically significant effect of portfolio diversification on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya.

H₀₄: Regulatory framework has no statistically significant effect on growth of mutual fund institutions listed in Nairobi Securities Exchange in Kenya.

H₀₅: There is no statistically significant effect of financial innovation on growth of mutual fund institution listed in Nairobi Securities Exchange in Kenya.

1.6 Significance of the Study

The main purpose of this study is to establish the effect of the identified determinants on growth of mutual fund institutions listed in Nairobi Security Exchange in Kenya. The beneficiaries of this study would be:

1.6.1 Management of Mutual fund Institutions

Fund managers have the responsibility of managing the institutions on behalf of individual investors. Stakeholders in financial asset investment are concerned about performance in terms of both for portfolio management and risk profiling. Fund managers could employ value oriented strategies or growth oriented strategies in their stock selection undertakings. The information will assist fund managers to improve on their portfolio selection by considering factors that have greater influence on growth of mutual fund institutions.

1.6.2 Investors in Mutual funds Institutions

Investors are people who buy one or more products of these institutions. Investors may have diversified interests with regards to disbursement of returns, that is, there are those whose interest is immediate disbursement of their earnings as well as those whose interest is increase in value of their investments. Despite these differences, all the investors are keen on the earnings of the investment. This study indicates which investments have better returns. The investors will also be able to know whether fund managers add value to their invested capitals by identifying critical growth factors which in turn will enable better investment decisions.

1.6.3 Policy Makers

The government through their agencies has a responsibility of creating a good investment environment. This is usually done by crafting investment policies which take into account the interest of both the investors and the general economic status. The formulation of such policies should be objectively done. The study benefited the government, through the CMA and the NSE, in formulating policies that enhance the growth of mutual fund institutions. This is made possible through the identification of critical variables influencing growth of mutual fund institutions.

1.6.4 Scholars and Researchers

The study will form a basis for further research to the academicians. The study provides empirical literature for scholars and researchers who would like to debate or carry out further studies on performance of mutual fund institutions in Kenyan context.

1.7 Scope of the Study

The scope of the study was on two dimensions that is geographical scope and methodological scope. On geographical scope, the study listed mutual fund

institutions in Kenya. Listed firms are those firms whose securities are traded in the stock exchange. The choice is informed by the fact that tight regulations required by Capital Market Authority (CMA) makes participant in the bourse the best managed companies in the country. Among the requirements by CMA is the publication of financial reports accompanied by full disclosure requirement. These publications will form a very important source of data. The study covered 2006 to 2015 period. The period is preferred due relative financial stability in the country (Central Bank of Kenya, 2010-2016).

On methodological scope, the study adopted across sectional study design with a target population of mutual fund managers and their deputies of all 18 registered mutual fund institutions in Kenya.

Both primary and secondary data was collected for the study. Primary data was collected through administration of typed questionnaires while secondary data was obtained from publicly available audited financial statements.

1.8 Limitations of the Study

The study only collected data from publically listed mutual fund institutions in Kenya. A comparative study should be done to establish whether there exists a statistical differences between listed mutual fund institutions and private or small institutions. This would establish whether the findings are applicable to all mutual fund institutions. The study targeted 106 instead of a possible 122 respondents from fund managers and their deputies and only 82 responded. This translated to 78% respondents. A study with a higher respondent rate may give more conclusive results. Finally, the study used a cross-sectional survey design which only covered a short period, however, there is need to carry out a longitudinal study using time series data to establish trends and patterns of growth of listed mutual fund institutions. This may be necessitated by changes in effectiveness of identified independent variables.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter presents both theoretical and empirical literature review on the fundamental aspects that underpin the study variables. The chapter further presents the theoretical and conceptual frameworks, empirical review, critique of existing literature, research gaps and the summary.

2.2 Theoretical Framework

A theory is a coherent set of hypothetical, conceptual and pragmatic principles forming the general behaviour patterns observed from the field of study (Wanjiku & Namusonge, 2013). This study was underpinned by four theories; Modern Portfolio Theory, Agency Theory, Liquidity theory and Financial Innovation Theory. All these theories discuss fundamental concepts which form the bed rock of investment decisions and growth of enterprises.

2.2.1 Modern Portfolio Theory

Harry Markowitz's doctoral dissertation in statistics in 1952, laid foundation for Modern Portfolio Theory ("MPT"). The theory based on the fact that every investment possess some level of risk. The most important aspect of Markowitz' model was the impact on portfolio diversification on the company's overall profitability. Diversification refers to investing in different investments in order to manage the organisation's non- market risk. An economist James Tobin in 1958, enriched the theory through his publication entitled "Liquidity Preference as Behavior toward Risk," in which he reviewed Economic Studies and derived the 'Efficient Frontier' and 'Capital Market Line' concepts based on Markowitz' works. Tobin's investment model suggested that market investors will maintain stock portfolios in the same proportions as long as they "maintain identical expectations regarding the future", no matter their levels of risk tolerance. Markowitz later on

significantly expanded this theory with the publication of his book, *Portfolio Selection: Efficient Diversification* (1959). In this publication, Markowitz demonstrated how MPT can be used to construct an "efficient frontier" of optimal portfolios, offering the maximum possible expected return for a given level of risk by investing in different investments.

MPT was later enhanced when, Sharpe (1964), Lintner (1965); Mossin (1966) developed Capital Asset Pricing Model (CAPM) as a general equilibrium model for the pricing of assets under uncertainty. The CAPM provided an important evolutionary step in the theory of capital markets equilibrium, better enabling investors to value securities as a function of systematic risk. Sharpe (1964) significantly advanced the Efficient Frontier and Capital Market Line concepts in his derivation of the CAPM. Sharpe would later win a Nobel Prize in Economics for his seminal contributions. A year later, Lintner (1965) derived the CAPM from the perspective of a corporation issuing shares of stock. Finally, in 1966, Mossin also independently derived the CAPM, explicitly specifying quadratic utility functions (Megginson, 1996). Since the earlier works of Markowitz, and later, Sharpe, Lintner and Mossin, there have been various expansions and iterations of MPT, (Mangram 2013).

The implication of MPT to this study is that mutual fund managers can reduce the investors' risk by investing in more than one investment (stock). A FC can reap the benefits of diversification, particularly a reduction in the riskiness of the portfolio. Investing in different items (investments) is usually referred to as portfolio diversification. This theory therefore, underpins portfolio diversification as a determinant of growth of mutual fund institutions.

Portfolio diversification has become the catch word in investment discourses (Mukherji, 2011). Old wisdom has always advocated against putting all your eggs in one basket. In a more technical terms, this wisdom is addressing the benefits of investing in different investments at any given time. Modern portfolio theory has quantified this idea of diversification by introducing the statistical notion of a

covariance or correlation (Alan, Atalay & Crossley, 2010). When expounding the old wisdom in finance, Goetzman *et al.*, (2014), stated that investing in portfolios which are affected in the same way by an economic event (investments whose returns are highly correlated) is not a very wise investment strategy. The idea of investing in several investments is very intuitive and is so strong that it has been continually applied to different aspects in investments (Galloppo, 2010); (Berge, Korhonen & Zhoum, 2010). Le Bas, Haned and Colombelli (2011), stated that several financial innovations within the financial market have either been an application of the concept of diversification, or the introduction of new models bringing in improved estimates of the variances and covariance thereby allowing for a more precise measure of diversification and risk. These financial innovations address the statement that the risk parameters are unstable in times of crisis and introduced a procedure for identifying multivariate outliers and using them to estimate a new covariance matrix (Lvisauskaite, 2010). This theory underpins portfolio diversification variable of the study.

2.2.2 Agency Theory

Adam Smith (1937) is perhaps the first academician to bring into limelight the possibility of existence of agency problem. Thereafter, many scholars have found it motivating to cultivate the aspects of agency theory. Agency theory centers on the fact that if a business entity is managed by a person or group of persons who are not the real owners, then there is a chance that they may pursue their own interests at the expense of the owners' interest. The theory suggests that the real owners of the business should be the ones managing the business so that the owners' wealth may be maximized. In the event that the real owners are not able to manage the business then they should be ready to sacrifice some of their interests or have to spend more in terms of control measures in order to keep agents in check. Berle and Means (1952) later magnified this concern in their thesis, where they analysed the ownership structure and management of the large firms in USA. They established that agents appointed by the owners control large firms and carry the business operations. They

voiced their concern that the agents might use the property of the firm for their own end, which will create the conflict between the principals and agents.

The financial literature in the 1960s and 1970s described the agency problem in the business entities as the problem of risk-sharing among the co-operating parties involved in the organizations (Wilson, 1968; Arrow, 1971). The extant literature expounds that in any business entity, there are individuals and groups in the firm having different risk tolerance and their actions differ, according to their risk tolerance. The principal or the owners, who invest their capital and take the risk to acquire the economic benefits, whereas the agents, who manage the firm are risk averse and concerned with maximising their private benefits. Both the principal and agent are having opposite risk preferences and their problem in risk-sharing creates the agency conflict, which is broadly covered under the agency theory. Ross (1973); Mitnick (1975) brought more spices to the agency theory by coming up with two different approaches in their respective studies. Ross regarded the agency problem as the problem of incentives (economic rationality), where each party wanted to maximise their returns, while Mitnick considered the problem is the result of the institutional structure, but the central idea behind their theories is similar. Ross suggested that the principal-agent problem as the consequence of the compensation decision and opined that the problem does not confine only in the firm, but also prevails in the society as a whole. Mitnick's institutional approach helped in developing the logics of the core agency theory and it was possibly designed to understand the behaviour of the real world. His theory propagated that institutions are built around agency and grow to reconcile with the agency.

Jensen and Meckling (1976) defined a firm as a 'set of contracts between the factors of production'. They described that firms are the legal fictions, where some contractual relationships exist among the parties involved in the firm. Agency relationship is also a kind of contract between the principal and agent, where both the parties work for their self-interest that leads to the agency conflict. In this context, owners undertake various monitoring activities to control the actions of the agents. In

the principal–agent contract, the remuneration structure and information asymmetry play crucial roles in building the theory of ownership structure.

Jensen and Meckling (1976) depicted the firm as an economic entity, which operates to maximise return. The returns are maximised through a proper coordination and teamwork among the parties involved in the firm. However, the interest of the parties differs, the conflict of interest arises, and it can only be relegated through managerial ownership and control. The self-interested parties also know that their interest can only be achieved if the firm exists. Hence, they perform well for the survival of the firm. Same way, Fama (1980) advocated that the firms can be disciplined by the competition from the other players, which monitors the performance of the entire team and the individual persons.

Fama and Jensen (1983) did a study on the decision-making process and the ultimate beneficiaries. They broke down the firm's decision process into decision management and decision control, where agents are the key players in the process. In small firms, the decision management and decision control are the same but in big corporate bodies, both exists. In those corporates, the agency problem arises in the management decision process because the decision-makers who initiate and implement the decisions of the firm are not the real bearer of the outcome of their decisions. They inferred that these agency problems must be controlled for the survival of the firm. Grossman and Hart (1983) made an interesting findings on the divergence of risk preference between the principal and agents. They explained that the benefits of the principal is affected by the agent's output. The agent's level of effort affects the firms' output, which in turn affects the benefits accruing to principal. The principal should therefore trade-off the agent's behaviour with a proper payment structure. The incentive structure is affected by the agents' attitude towards the risk and information quality possessed by the principals and no incentive problem arise if the agent is risk neutral.

Eisenhardt (1989) categorized the agency theory into positivist agency model and principal–agent model. Both of these models are based upon the contractual

relationship between the principal and agent but principal–agent model is more mathematical. Principal–agent model suggests that principals are risk-neutral and profit seekers, while agents are risk averse and rent seekers. Positive agency theory suggests that the causes of agency problem and the cost involved in it. This theory proposes that if the outcome of the contract is incentive based, then the agents act in the favour of principal but if the principal is having information about the agents, then the action of the agents will be disciplined.

The study of agency problem and its remedies is continuing in both the corporate and academic fields. Eisenhardt (1989) highlighted that a proper governance system can reduce the agency conflict. He advocated for an outcome-based contract, where the action of the agents' can be checked or a strong information structure, where the principal is aware of all the information about the agents' action and they cannot misrepresent the principals.

Panda and Leepsa, (2017) observed that most businesses operate under conditions of information asymmetry which exposes them to two agency problems, that is, adverse selection and moral hazard. Adverse selection occurs when owners cannot ascertain whether an agent accurately represents his ability to do the work for which he is paid to do while moral hazard is a condition under which a principal cannot be sure if an agent has put forth maximum effort. Panda and Leepsa (2017) explained that management may be more interested in their personal welfare than in the welfare of the firm's investors and by the fact that superior information is available to them; they take the advantage over the investors. The agency theory is then adopted for this study because according to Namanzi (2013) agency theory is concerned with analyzing and resolving problems of information asymmetry that exists between mutual fund investors and their professional fund managers. Further it tries to establish how best to operate the mutual fund institutions such that fund managers earn their commissions rightfully and be contented with their returns and fund investors are also happy with their returns (Panda & Leepsa, 2017).

Namanzi (2013) argued that mutual fund managers will not strive to maximize returns to investors unless appropriate regulatory structures are implemented to protect the interests of investors. According to Kultys (2016) the problems arises because agents (professional fund managers) are not supposed to bear responsibility for their decisions since they don't own a substantial amount of stock in the firms and hence don't stand to benefit by pursuing wealth maximizing objective. This derail the growth of such institutions and fails to maximise the owners' wealth.

In summary, Kultys (2016) observed that managers will not act to maximize the returns to investors unless appropriate governance structures are implemented in the large corporations to protect the interests of investors and recommends that selection of appropriate governance mechanisms between owners and managers will ensure an efficient alignment of the principal and agent's interest. According to Panda and Leepsa (2017) agency theory is concerned with analyzing and resolving problems of information asymmetry between mutual fund investors and mutual fund managers who are their professional agents. Agency theory is therefore adopted in this study because the study focuses on how much information is disclosed to the investors and how this information disclosed influences their investment decisions in mutual fund institutions listed in Nairobi securities Exchange. Management of Mutual fund institutions can be made to disclose complete and relevant information to investors through regulatory regime, hence the need for regulatory system as an independent variable.

2.2.3 Market Liquidity theory

Market liquidity is the comfort of traders where they trade financial assets, and funding the acquisition of financial security with ease due to credit accessibility (Brunnermeier & Pedersen, 2009) and (Leirvik *et al.*, 2017). Under the standard Arrow–Debreu paradigm, trading in financial markets should involves no frictions, that is , one is able to raise any amount of money with minimum or zero cost. In practice, however, frictions of varying degrees occur in all markets and reduce

liquidity. A large and growing theoretical literature traces illiquidity, that is, the lack of liquidity, to underlying market imperfections such as asymmetric information, different forms of trading costs, and funding constraints. It also studies how imperfections affect expected asset returns through their influence on liquidity. Extant theoretical literature on market liquidity often employs different modeling assumptions when studying different imperfections. For example, studies on trading costs typically assume life-cycle or risk sharing motives to trade, while those on asymmetric information often rely on noisy traders. Some papers on asymmetric information further assume risk-neutral market makers who can take unlimited positions, while studies on other imperfections typically assume risk aversion or position limits.

A theoretical models developed by Easley & O'Hara (2004) and Easley *et al.* (2002) indicated that private information affects the process by which prices become informational efficient and this affects the risk of holding stocks. Therefore, stocks with higher probability of information based trading will have higher expected returns. In addition, Glosten and Harris (1988) reported that adverse selection costs are the primary cause of illiquidity in financial markets. Hence, there should be a negative return between liquidity and returns.

In modern finance theory, efficient market hypothesis (EMH) is one of the most important concepts in the relevant literature of financial market liquidity. Financial market efficiency is measured by its allocation efficiency, information efficiency and absence of or low friction. Allocation efficiency refers to the ability of the financial market to allocate the financial resource to the most profitable investments, information efficiency refers to a situation where every market player has all the relevant information. If this is achieved then no economic unit would use information asymmetry to consistently profit from the market while friction cost refers to cost of participating in the financial market (Nyanamba *et al.*, 2015).

According to Chipaumire and Ngirande (2014), a liquid financial markets facilitates growth of mutual fund institutions by allowing mutual fund participants to buy and

sell securities at a reasonable cost in terms of bid-ask spreads, stabilizing the prices of securities thereby minimizing market risks and valuation of securities is made easier. Liquid financial markets are generally desired because of the multiple benefits they offer. These include improved allocation and information efficiency (Nyanamba *et al.*, 2015), they allow federal/central banks to use indirect monetary instruments and this contributes to a more stable monetary transmission mechanism and permit financial institutions to accept larger asset-liability mismatches, therefore, fostering more efficient crisis management by individual institutions and reducing the risk of central bank acting as the lender of last resort (Nyasha & Odhiambo, 2017). Leavin *et al.*, (2015) established that financial market liquidity is a robust predictor of physical capital, productivity and growth of financial institutions. This theory is chosen because it forms the foundation on which financial market liquidity is based.

2.2.4 Financial Innovation Theory

Schumpeter in 1980s developed Innovation theory to explain economic growth. The theory states that the only factor responsible for economic change is innovation. According to Schumpeter, innovation includes but not limited to; introduction of a new product or a an improved species of already known product, application of new production or sales methods, opening of a new market, discovering an alternative raw materials and designing a new industry structure such as the creation or destruction of a monopolistic position. Schumpeter argued that anyone seeking profits must innovate that which will destroy the existing systems and create a new system that will increase the liking of the organisation's products. Schumpeter regarded innovation as an essential driver of competitiveness and economic dynamics. He also believed that innovation is the center of economic change causing gales of "creative destruction". According to Schumpeter innovation is a process of industrial mutation that incessantly revolutionizes the economic structure from within, destroying the old one, and creating a new one.

From this beginning, others scholars have come up with varied definitions of innovation, for example, Kibugo and Kimani (2016) described innovation as the process by which, firms master and implement designs and the production of goods and services that are new to them regardless of whether they are new to their competitors, country or the world. Ajide, (2016) defined innovation as a continuous process of upgrading by employing new knowledge or the new combination of existing knowledge that is new to the local area. Innovations generally assume different forms such as product innovations, marketing innovations, micro finance institutions (MFIS), location innovation, and research and development innovation.

Financial innovation may be defined as, creation of a new financial product, new financial delivery system, new financial institution or even new financial regulation. All these is done in order to ease credit accessibility as well as mobilization of funds. Financial innovation has been a major component of economic activity for several millennia (Bara & Mudzingiri, 2016). Levine *et al.*, (2015) point out that financial innovation is the major driving force behind financial deepening and economic development over the past centuries. Financial innovation mobilizes financial surpluses from ultimate savers and channels them into most productive investment avenues - thereby raising the rate of capital accumulation, and hence, the rate of economic growth (Mishra, 2017). Financial innovation influences the structure of financial markets and a well-developed financial system can promote economic growth by enabling economic agents to diversify their portfolios and meet their liquidity requirements (Atandi, 2017), also argued that for innovations to succeed, management must competently perform their role of change creator. Change creation by management is not astatic activity but rather a continuous process of innovation by introducing new products and services as new opportunities presented themselves. The creation of financial products are usually products of serious researches by either an external researcher or internally by research and development team. Financial research and development centers are briefly described as the main infrastructure to generate, control, defend, and capitalize information and knowledge in today's technology-based, integrated financial markets (Mishra, 2017).

2.2.5 Mutual fund theory

The Mutual Fund Theory (MFT), also called the “two fund theory” or the “separation theory”, explains the optimal investment strategy of a utility maximizing agent (Jarrow, Protter & Shimbo, 2010). The theory explains that the agent will only invest in two funds: the risk-free asset as well as portfolio of risky assets available on the financial market. The crucial feature of this theory is that the portfolio of risky assets applies to all utility maximizing agents, independently of the special form of their utility function as well as their initial endowment, (Markowitz, 1952); (Haslem, 2010). This enables agents to construct an optimal portfolio by holding each of certain mutual fund products in appropriate ratios. This theory makes it possible for an investor to purchase a smaller number of mutual funds than to purchase a larger number of assets individually and also possible to derive and test the functioning of asset markets (Jarrow, Protter & Shimbo, 2010)

According to Scholten and Wensveen, (2013), financial intermediaries are active because market imperfections which savers and borrowers far apart thereby preventing them from trading directly with each other in an optimal way. The major source of market imperfections is the informational asymmetries between savers and borrowers. Mutual fund Institutions fill information gaps between ultimate savers and borrowers. This is because they have a comparative informational advantage over ultimate savers and borrowers. They screen and monitor borrowers on behalf of savers. They also bridge the maturity mismatch between savers and borrowers and facilitate payments between economic parties by providing a payment, settlement and clearing system. Consequently, they engage in qualitative asset transformation activities. To ensure the sustainability of financial intermediation, safety and soundness, regulation has to be put in place. Regulation also provides the basis for the intermediaries to enact in the production of their monetary service. Mutual fund institutions are one set of financial intermediaries.

A mutual fund institution consist of; Investors, Sponsors, Asset management company (AMC), Trustees, Distributors, Registrars and Custodian/Depository

(Lathashri, Renuk & Lashmi, 2014). Investors are the people whose financial position and personal disposition, has a certain inclination to take risk. The thinking is that by taking an incremental risk, an investor would be able to earn an incremental return. Mutual fund is a solution for investors who lack the time, the inclination or the skills to actively manage their investment risk in individual securities. They delegate this role to the mutual fund, while retaining the right and the obligation to monitor their investments in the scheme. Investing through a mutual fund makes economic sense if an investor is able to earn higher return than what the investor would otherwise have earned by investing directly. Sponsor is the company, which sets up the Mutual Fund as per the provisions laid down by the Securities and Exchange Board of each country. The securities Exchange Boards mainly fixes the criteria of sponsors based on sufficient experience, net worth, and past track record.

The Asset Management Company (AMC) manages the funds of the various schemes and employs a large number of professionals for investment, research and agent servicing (Brian & Daniel, 2010). The AMC also comes out with new schemes periodically. It plays a key role in the running of mutual fund and operates under the supervision and guidance of the trustees. An AMC's income comes from the management fees, it charges for the scheme it manages. The management fees, is calculated as a percentage of net assets managed. An AMC has to employ people and bear all the establishment costs that are related to its activity, such as for the premises, furniture, computers and other assets, etc. The exchange boards issue guidelines for the formation of AMCs. The guidelines may include: the person to chair the AMC, the terms of the managing director and other executive staffs, the percentage of the board of trustees of AMC to come outside the company, remuneration of the board of directors and the activities to engage in. Trustees are responsible for ensuring that investors' interests in a scheme are taken care of properly. They do this by a constant monitoring of the operations of the various schemes. In return for their services, they are paid trustee fees, which are normally charged to the scheme. Distributors are responsible for bringing investors into the schemes of a mutual fund and earn commissions.

Registrar and Transfer Agent (R & T) are responsible tracking an investor's holding in mutual fund schemes. Some AMC's prefer to handle this role on their own instead of appointing R & T. The Registrar or the AMC as the case may be maintains an account of the investors' investments and disinvestments from the schemes. Requests to invest more money into a scheme or to redeem money against existing investments in a scheme are processed by the R & T. The custodian maintains custody of the securities in which the scheme invests. This ensures an ongoing independent record of the investments of the scheme. The custodian also follows up on various corporate actions, such as rights, bonus and dividends declared by investee companies. No custodian in which the sponsor or its associates hold fifty percent or more of the voting rights of the custodian or where fifty per cent or more of the directors of the custodian represent the interest of the sponsor or its associates shall act as custodian for a mutual fund constituted by the same sponsor or any of its associates or subsidiary company (Bryant & Liu, 2011).

In mutual fund institutions, investors purchase mutual fund shares from the fund itself (or through a broker for the fund) instead of other investors on secondary market at a price known as net asset value (NAV) plus any shareholder fees that the institution imposes at the time of purchase (such as sales loads). The shares are redeemable, meaning investors can sell their shares back to the institution (or to a broker acting for the fund). The institutions generally create and sell new shares to accommodate new investors, although some stop once they become too large (Teerapan, Ranko & Theobald 2014) and (Lakshmi & Sasikala 2010). Mutual fund institution products include; Equity and Bond funds, which predominantly invest in equities or bonds, Balanced funds, which have more balanced portfolios of both equities and bonds, Money market mutual fund, which specialize in short-term financial instruments and Managed retirement funds, which mainly invest in other mutual funds (Muthaura, 2013); (Miller, Prather & Mazumder, 2010). Investment vehicles for mutual funds include; stocks, bonds, commodities or real estate (Miller, *et.al*, 2010). In all these cases, the investor is trading a known amount of money today for some expected future streams of payments that will be greater than the current outlay (Lai & Liu, 2010).

2.3 Conceptual framework

Conceptual framework is a detailed description of the phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study (Robson 2011). The conceptual framework in figure 2.1 shows the relationship between the dependent and independent variables. The dependent variable of this study is growth of mutual fund institutions. The independent variables are Investors' perception, financial market liquidity, portfolio diversification, regulatory framework, and financial innovation. The conceptual framework was developed from the review of relevant literature and assumed a linear relationship between the dependent variable and each independent variable.

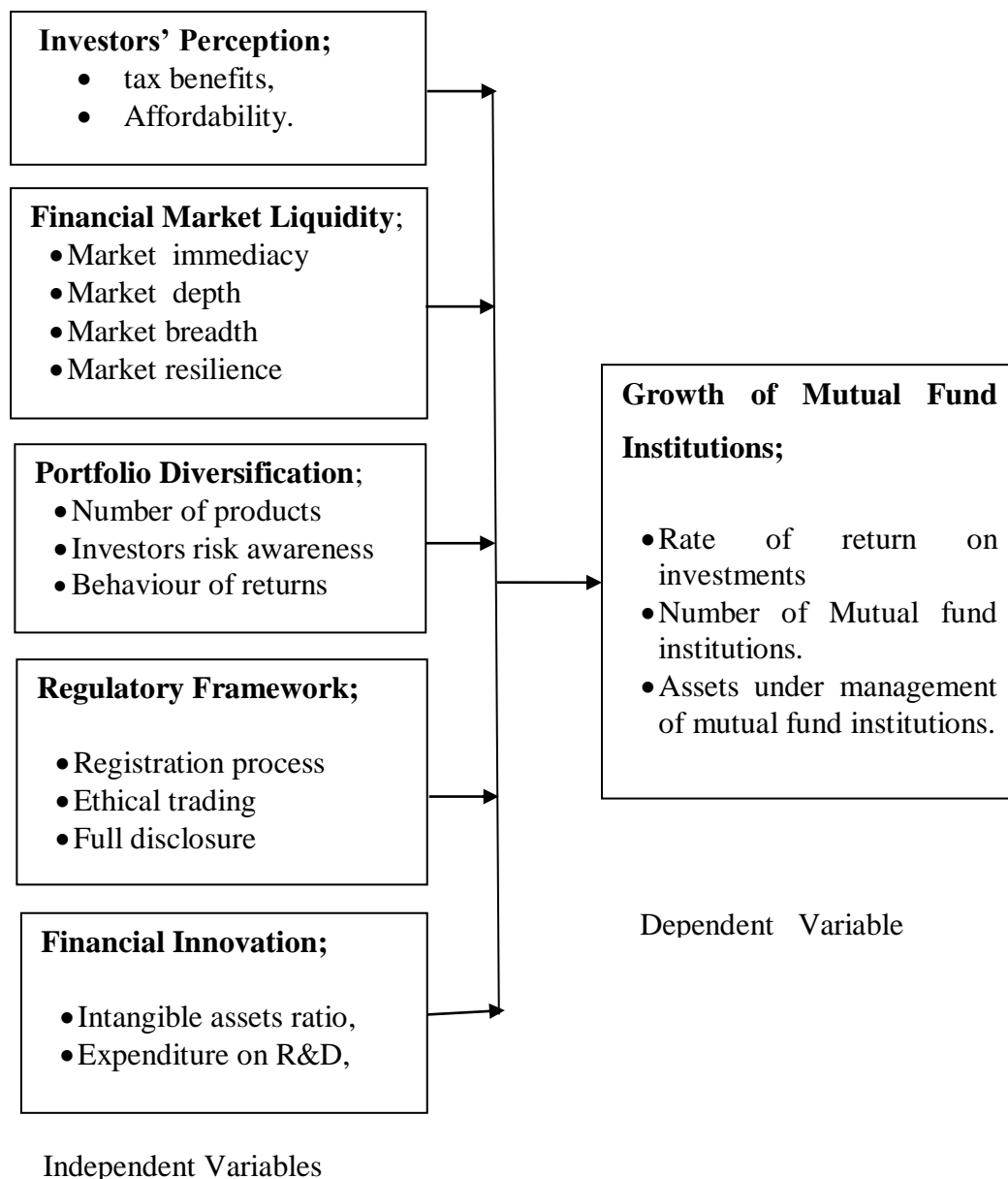


Figure 2.1: Conceptual framework

2.4 Literature Review of Variables

The question of what drives the mutual fund institutions in any country is a concern of every stakeholder in a financial system in every economy. Mutual Fund industry plays a pivotal role in optimal allocation and channelization of available idle resources in the economy (Kalayaan, 2013). This role becomes much stronger in the developing economies, like Kenya, where the prospective investors do not have much investment knowledge, information and facilities to invest in the capital

markets. The identified drivers are investors' perception, financial market liquidity, portfolio diversification, regulatory framework and financial innovation.

2.4.1 Growth of Mutual Fund Institutions

Firms' growth reflects how the firm evolves and adapts to its environment (Alter, 2017). Firms appear in the market, survive, grow and eventually die, transferring their knowledge and information to surviving firms. Mutual firms growth is one of most widely studied topics in financial literature. Several arguments highlight the crucial importance of this field (Pandow, 2017): First, mutual firms' growth is related very closely to their survival. Specifically, mutual firms' growth is positively correlated with the likelihood of survival. Hence mutual firms that experience continuous growth will have a higher probability of surviving in the market. Secondly, mutual firms' growth has consequences for employment. A positive rate of growth implies a net creation of new jobs, while a negative rate implies the net destruction of jobs. Job creation and job destruction are closely related to the ability of incumbents and new entrants to grow. And, obviously, the evolution of employment therefore has obvious impacts on government budgets.

The third factor behind the importance of mutual firms' growth is its effect on economic growth. Backward and forward linkages will be higher or lower depending on the evolution of active firms. If we look at the general effect on an economy, an increase in mutual firms' growth may increase its demand towards other sectors, thus producing an increase in the economic activity of a region. This dynamism in the economy leads to major economic growth. On the other hand, a decrease in the number of employees in a firm may indicate or cause a crisis. Fourth, mutual firms growth is a way to introduce innovation and is a leitmotiv of technological change. For example, if a mutual firm wants to grow and survive in a competitive industry, it needs to incorporate new technologies in order to be more efficient. In this sense, growth is a challenge a mutual firm must meet by introducing innovation. Fifth, the evolution of the size of incumbents and new entrants determines market concentration. If small mutual firms grow at a high rate, market competitiveness will

increase. Conversely, increases in the size of large firms will affect market concentration. The regulation of market concentration to avoid the creation of monopolies and oligopolies has been one of the main interests of governments. The analysis of firm growth may therefore help to clarify the concentration of firms in a market (Pandow, 2017).

Moreover, a study of firm growth can shed light on the importance of the selection process after a firm has entered the market (Ripain & Nuru, 2018). Once a firm enters a market a selection process takes place whereby less efficient firms decrease in size and disappear and more efficient ones survive and grow. The analysis of firm growth will therefore show how firms behave once they enter the market, their market opportunities, turbulence and level of efficiency. Marina and Oleg (2016) stated that firms' growth has practical consequences for policy-makers' decisions. This is because firms' growth increases employment and economic activity and policymakers can control these macroeconomic variables using firm growth policies. However, as the growth is heterogeneous between firms, it is crucial to know the internal and external characteristics of firms that affect their performance in the market. An ample knowledge of these features will enhance the effectiveness of public policies as well as their impact. Wee and Ibrahim (2013), pointed out that enterprise growth is regarded as a key to economic development and to the creation of wealth and employment. Therefore, expectations for future growth are formed under the influence of various factors. They include environmental factors, characteristics of people, that is, owner-managers, and characteristics of the enterprise being practiced.

One of the main challenges in every discipline is to homogenies the criteria for classifying its units of observation. The analysis of firm growth is no different because there are different ways of measuring the growth of a firm. This diversification is sometimes due to the purposes of each author but, more usually, it is due to lag of data. In fact, the empirical literature uses a wide range of measures whose use depends on the purpose and subject of the data. Some of these indicators) are: The financial or stock market value, The number of employees, The sales and

revenue, The productive capacity, The value of production and The added value of production (Alan *et al.*, 2010).

Different researchers have used various forms of these elements to measure growth of firms, for example, Nagib (2016) used sales growth, profit, return on equity, return on assets and value of the company as indicators of growth while Bunyasi, Bwisa and Namusonge (2014) postulated that firms' growth can also be measured in terms of sales, number of employees, value added, and complexity of the product line, production technology or the number of business units (branches) in different locations. Mwangi and Ngugi, (2014) postulated that return on investment (ROI) is preferred because it is the most comprehensive measure of profitability in finance. This study adopted return on investment, number of mutual fund institutions and assets under management as indicators of growth of mutual fund institutions. Return on investment (ROI) is a financial measure that has long been employed in the business world to monitor performance (Preuss, 2016). ROI is calculated by expressing the benefit (return) of an investment as a percentage of the cost of the investment. The desire to understand the efficacy and outcome of an investment is both common and wise. The need for such understanding extends to all stakeholder categories and especially for the investor, the research community, and the public (Preuss, 2016).

Assets under management (AUM) is very popular within the financial industry as a measure of size and success of an investment management firm. Methods of calculating AUM vary between firms. Investment management companies generally charge their clients fees as a proportion of assets under management, so assets under management, combined with the firm's average fee rate, are the key factors indicating an investment management company's top line revenue. Assets under management may increase when investment performance is positive, or when new customers and new assets are brought into the firm. Rising AUM normally increases the fees which the firm generates. Conversely, AUM are reduced by negative investment performance, as well as redemptions or withdrawals, including fund

closures, client defections and other generally adverse events. Lower AUM tend to result in lower fees generated.

2.4.2 Investors' Perception

Gaining the confidence of the investors is very essential for successful working of the mutual fund industry (Kumar, 2012). Investors are generally more careful while making investment decision and presence of rationality in every investor demands higher return at minimum risk but when markets are efficient it is not possible to gain abnormal returns (Agrawl & Jain, 2013). Customer's confidence, lifestyle factors, motivations and emotional responses influence the customer's choice of financial services, while product, channel and organizational factors such as image and reputation are also significant (Bell, Filatortchev & Abdul, 2012). Investors' opinion and perception relating to various issues like type of mutual fund scheme, its objective, role of financial advisors / brokers, sources of information and deficiencies in the provision of services attract investors to invest in mutual fund industry (Saini, Law & Ahmed, 2010).

Balamani (2014), observed that demographic factors like gender, income and level of education have their significant impact over the attitude towards mutual funds. On the contrary age and occupation have not been found influencing the investor's attitude. The study noticed that return potential and liquidity have been perceived to be most lucrative benefits of investment in mutual funds and the same are followed by flexibility, transparency and affordability. Gitman & Joehnk (2011), observed that one of the critical costs to mutual funds is the tax paid on transaction of securities. To avoid double taxation, most mutual funds world over operate as regulated investment companies (Alan *et al.*, 2010). This means that all (or nearly all) of the dividend and interest income is passed on to the investor, as are any capital gains realized when securities are sold. The mutual fund institutions therefore pass the tax liability on to its shareholders.

Tax rate paid by the fund management company is equated to corporate tax rate in all countries, and determine whether the country allows securities in bearer form. Investors are more likely to be able to avoid taxation of investment income completely in countries where bearer securities are allowed because tracing income back to the investors is difficult. Therefore, if investing in the fund creates more of a paper trail, which could be tracked by tax authorities, investors may be more interested in buying the underlying securities themselves (Chandra & Kumar, 2011). This study adopted Tax benefits and affordability of the mutual fund products as what influences the investors' perceptions.

Tax, in most countries, is the main source of government income. According to Heritage Foundation (2012), tax in Zimbabwe contributes 49.3 percent of gross domestic product (GDP), in South Africa it contributes 26.9 percent whilst in the USA it also contributes 26.9 percent of GDP. The fact that tax is the main source of government income implies that the government can show its commitment towards the growth of a particular sector by foregoing this income in exchange for increased investments.

It is important to hasten to say that, according to Munyanyi (2015), a good investment climate is underpinned by a sound tax regime. Further to this, Jorgenson (1963) confirmed that a direct relationship exists between tax concessions on one side and inflow of foreign direct investments and equipment investment expenditure growth on the other side. The neo-classical model, originally presented by Jorgenson (1963), argued that investment should be a function of expected future interest rates, prices and taxes (Alan *et al.*, 2010). It assumes that the desired stock of equipment depends on planned output and the ratio of output price to impact rental price or services of equipment. Jorgenson's formulation asserts that equipment is accumulated to provide equipment services that are inputs to the productive process. In summary, Jorgenson's findings are that sustained tax cuts raise the amount of equipment available to firms, thereby improving their investment capabilities. Traditionally, tax policies increase the firms' ability to finance their projects by lowering costs through tax relief. The lower costs typically translate into higher

investment levels, Jorgenson (1963). Girgi, Karlis and Nguyen, (2018) supported the assertion by Jorgenson (1963). He says that when intelligently used, these incentives can increase the profitability of investment in fixed assets, as well as reinforcing the cash flow needed to finance them. In particular, countries have been offering tax incentives to influence the location decisions of investors. Mkombe, (2015) who studied tax incentive in Tanzania discovered that Tanzania grants a relatively generous package of tax incentives for foreign investors. He adds that the effectiveness of the incentives is questionable and it is a naked truth that the incentives are costs to the government as they represent lost government revenues. Mohanasundari, Vetrivel and Lavanya, (2016) concluded that Liquidity, Rate of Return, tax benefits, high return, price, capital appreciation and Market share major vital parameters in investors investment decisions.

Affordability is the foundation of any competitive economy and equitable society, and thus it is desirable that mutual fund products is continuously made to be more affordable (Vyas, 2012). Affordability is typically defined as either the minimum amount one has to spend to purchase a mutual fund product or a multiple of incomes to service a typical loan or to finance the acquisition of mutual fund products. At the surface level, poor affordability may manifest in lower uptake of mutual fund products and therefore low mobilization of funds which reduces credit accessibility in the economy. Furthermore, low mobilization of loanable funds can place upward pressure on interest and inhibit the development of financial markets, leading to the reduced competitiveness of Kenya on a global scale for its export industries and domestic industries which are subject to international competition

2.4.3 Financial Market Liquidity

Financial market liquidity refers to the ability of the financial market to facilitate large volumes of trade in financial securities without causing excessive price movements, while still reflecting a steady and fair market price (Wyman, 2016). Financially liquid markets benefit every stakeholder in the market. Investors are able to move more easily in and out of assets due to lower cost of trading, lower price

volatility and improved price formation. Issuers of securities are able to reduce the cost raising capital and produce a more accurate share price valuations. Stock exchanges benefit from increased attractiveness to issuers and investors as this translates into greater use of the market, greater confidence, greater ability to attract new stakeholders, and greater ability to do business, which drives revenues both directly (through trading fees) and indirectly (through extending their product offering, for example). Economies as a whole benefit from companies' ability to access capital at a reasonable cost, subsequently increasing investment in their business and driving increased employment and their overall contribution to the economy (Wyman, 2016).

This concept of financial market liquidity encompasses the following multiple dimensions: tightness, immediacy, breadth, depth, and resilience. Market tightness is measured by bid-ask spreads. The bid-ask spread is the difference between offer and bid prices of a security and is interpreted as a proxy of the explicit cost of executing a trade in the market. The lower the spread, the easier to trade a security (buy at a low ask and sell at a high bid price), and the better the liquidity conditions (Corwin & Schultz, 2012).

Market breadth measures the variation between the highest and lowest daily price during a certain period of time against the turnover. Breadth is established by computing the liquidity index. The higher the index the more liquidity is strained, and vice versa. Mutual fund products will be more attractive if the liquidity index is low, since this is an assurance that one does not have to keep and investment for long due to high cost (loss) involved in liquidating the investment. Market resilience is the speed at which prices return to stability after a shock. Resilience is approximated through the Market Efficiency Coefficient (MEC) (Abdourahman & Tonny, 2014). This indicator is a ratio between the variance of a long-period return and a short-period return. The intuition behind this indicator is that in resilient markets, short- and long-term volatilities are supposed to be similar as a result of prices moving faster to new equilibrium levels. Thus, the MEC ratio should be close to one in resilient markets and deviate from unity in markets characterized by poor resilience.

It must be emphasised that every market suffers from shocks which are caused by factor outside the market. The important thing is how soon the market is able to adjust after a turmoil. The sooner it recovers the better for the market players.

Investors preference of a high liquidity in financial market is not debatable since security prices keep on changing and these changes bring with them profit or losses. An investor is therefore expected to buy and hold on to any security as long as he deems it rewarding enough to adequately compensate him. Low liquidity most often restricts the investor's choice of a security (Chipaumire & Ngirande, 2014). The extent to which low liquidity is a restriction depends both on the particular share's liquidity and on the size of the institutional investor. Liquid financial market is of great concern during market turbulent periods when the investors want to make quick changes. Financial markets also need to be liquid in the sense that the supply of securities must trade with some regularity. In other words, investors do not simply buy the supply of securities and hold them forever.

Liquid financial markets are key foundation for the development of a mutual fund industry. Indeed, there is strong evidence that the relative size of a country's capital markets is correlated with the size of the mutual fund industry in that country (Parida, 2018). Omoruyi and Izeko (2015) established a positive relationship between the ratio financial market liquidity and economic growth in Nigeria. Ferreira *et al.* (2013) found a correlation across countries between mutual fund use and financial market liquidity. Klapper *et al.* (2012) established that mutual funds have greater market presence in countries where stock markets are more liquid. For example, France, the United States, and Australia all have a high level of financial market liquidity and high mutual fund market presence.

2.4.4 Portfolio Diversification

Diversification refers to a firm's entry into a new market. It means the increase by a firm in the kinds of businesses which it operates. Diversity either related to products, geographical markets or knowledge (Ogada, Achoki & Njuguna, 2016). Diversification seeks to minimize credit and other risks and to reduce volatility in

profits. It is achieved through merger by expanding geographically and by taking on different products or developing new ones using newly-acquired capability. Diversification is often the main driver of cross-sector conglomerates and cross-border mergers (Ogada *et al.*, 2016). Managers of firms often give diversification as a reason for entering into mergers and acquisitions. The explanation behind this is that the risk of earnings volatility is minimized when the activities of a firm are diversified. Thus when one aspect of operations is on the downside the loss can be compensated for or offset by increased or continued earnings in another aspect. This is expected to smoothen the earnings of a company, which over time leads to smoothening of the stock price of a company; hence giving investors more confidence to invest in it. Companies diversify in order to broaden their activities by increasing services, markets and products. Thus the aim of diversifying is to enable firms enter other business units that are different from their core activities; however diversification strategy in itself does not exist in a single form. Makhokha, Namusonge and Sakwa, (2016) argued that most literature conducted on diversification are in agreement that diversification is a form of growth strategy.

Many organizations implement two or more forms of growth strategies, in order to speed up the increase in market share or sales thereby improving financial performance of firms (Makau & Jagongo, 2018). Montgomery (2014) identified three primary reasons that drive companies to implement diversification strategies. First is market–power belief which assumes that as a firm becomes a conglomerate, it can obtain stronger position. Second is the agency attitude; this assumes that managers implement diversification to uplift status of the firm and also reduce risk of financial volatility in times of economic turbulence. Third is the resource based view that encourages firms to diversify when it has excess resources; these resources may be utilized elsewhere to improve the firms’ productivity. (Montgomery, 2014) stated that agency view proposes that if diversification is pursued to fulfill management desires and not maximization of profit, then it will ultimately bring the performance levels down.

Conventional wisdom in the finance literature argues that financial institutions, in which mutual fund institution belongs, should have their products be as diversified as possible (Berge *et al.*, 2010). This diversification is meant to reduce chances and/or expected costs of financial distress or bankruptcy by spreading operations across different products. Diversifying into several products reduces investors' unsystematic risk (Rop, Kibet & Bokongo, 2016). Studies on the relationship between portfolio diversification and financial performance of investment firms have produced mixed results. Makau and Jagongo (2018) undertook a causal research design approach in studying the impact of portfolio choice on financial performance of investment companies in Kenya. The findings indicated that investment in bonds, real estate, equity and size of the company positively impacted on financial performance of unit trusts. Another study by (Musembi, 2016) undertook a descriptive study to find out the impact of portfolio composition on financial composition of investment companies listed with Nairobi securities exchange. The findings are in agreement with Makau and Jagongo (2018). Rop *et al.* (2016) investigated the effect of portfolio diversification on financial performance of commercial banks in Kenya. The study concluded found a strong correlation between banks' product diversification and performance.

Mulwa and Kosgei (2016) investigated the relationship between portfolio choice and profitability of investments companies listed with Nairobi Securities exchange by employing a descriptive research design. The findings of the study indicate that investment is about selecting the right combination of stocks with minimal risks. Namusonge and Muturi (2016) established that one of the crucial aspects determining profitability of mutual funds in Kenya is diversification which involves holding a well-balanced portfolio. Nisar, Peng, Wang and Ashraf (2018) investigated financial institutions' diversification and their long-term franchise value, and they found that a higher share of non-interest income positively affects financial institutions' franchise values, but diversification into distinct financial activities increases the systematic risk of financial institutions. Second, Theoretical studies suggest that diversification makes it cheaper for these institutions to achieve credibility in their role as screeners or monitors of investment opportunities (Nguyen,

2015). In addition, diversifying firms benefit from the leveraging of managerial skills and abilities across products, or from activity diversification that generates economies of scale for the organization (Nisar *et al.*, 2018). On the other hand, Choi, Fedenia, Skiba and Sokolyk (2017) argued that the costs of diversification might outweigh the benefits. Therefore, a financial institution should focus on a single line of business so as to take the maximum advantage of management's expertise and reduce agency problems, leaving investors to diversify on their own. Consistent with this view, Damankah, Anku-tsede and Amankwaa (2014) found that, Ghanaian financial institutions replace traditional lending activities with fee-based activities which are associated with lower revenue volatility, implying lower risk.

Turkmen and Yigit, (2013) documented that non-interest diversification is negatively related with performance due to diseconomies of scope that arise through weakened monitoring incentives and a poorer quality loan portfolio when a risky bank expands into additional industries and sectors. Turkmen and Yigit, (2013) found that financial conglomerates engaging in multiple lending activities have lower market value than they would if they were split into separate financial institutions. The existing banking literature on diversification is heavily concentrated in US and European banking markets, leaving the emerging economies largely unexamined. One exception is Berge *et al.* (2010) who empirically examined the diversification-performance linkage for Chinese banks, and found that both product and geographical diversifications are associated with reduced profits and higher costs. Kariuki (2016), carried a study on the relationship between product diversification and financial performance of deposit taking microfinance institutions in Kenya. The study recommended that microfinance institutions should extend their product mixes to increase the performance through combination of non interest activities and innovative customer focused products that ride on existing technology.

2.4.5 Regulatory Framework

Okioga (2013), describes the financial sector regulatory framework as one that performs the role of supporting, safeguarding, monitoring, and ensuring financial

stability through providing an enabling, fair financial services sector environment. Governments primarily regulate markets to protect consumers. In the financial sector, an additional motivation for regulation is maintaining financial stability, which is a clear public good. Financial sector supervision thus requires a more elaborate framework and tends to be more rigorous and intensive than is the case in other sectors. The broad objectives for financial regulation include protecting investors to help build their confidence in the market, ensuring that the markets are fair, efficient, and transparent, reducing systemic risk, protecting financial services from malpractice by some consumers such as money laundering and maintaining consumer confidence in the financial system. Invariably, the structure and objectives supporting the regulatory framework differ from one jurisdiction to another. One key objective of regulation is to redress the information imbalance that sometimes exists between consumers and financial services. This is usually done by imposing upon financial services entities the minimum standards of business conduct. Moreover, the fairness of the financial markets depends in part on the degree of consumer protection. Overall, regulation attempts to strike a balance of protecting the markets, without stifling legitimate business. Regulatory framework may take different approaches: Institutional, Functional, integrated and twin peak (Schmulow, 2015)

Institutional approach focuses on the form of legal entity under regulation and assigns a particular regulator. The institutional approach to financial system regulation tends towards a heavily fragmented regulatory environment, ill-equipped to deal with financial entities that are hybrids, such as bank-cum-insurers. Such hybrids then face overlapping and potentially contradictory regulations. In such an environment each regulator will be responsible for both financial system stability and market conduct and consumer protection issues. This approach is regarded as least capable of dealing with financial conglomerates, the activities of which blur the boundaries between different types of financial firms. While it is true that the type of legal entity will determine the types of transactions in which it may engage, and the types of products it may offer, financial firms typically seek to define new products so as to circumvent the regulations on the types of products they may offer.

Contemporaneously, regulators seek to broaden their jurisdiction to accommodate these new products.

The functional approach pays no regard to the type of legal entity in question, but rather focuses on the types of transactions or products under regulation. Consequently, one firm engaging in multiple types of transactions will be subject to multiple regulators. Each regulator is then responsible for the safety and soundness of the firm, as well as the business conduct of the firm, as it applies to each type of product covered by the jurisdiction of each regulator.

The obvious shortcomings of this model relate chiefly to safety and soundness considerations, with different regulators potentially taking different views on the threat posed to the financial system of particular firms. Moreover, the types of activities being regulated must be definable with sufficient clarity, in order to determine which regulator has jurisdiction. While this system of financial regulation is common, and can be effective, provided there is a high degree of communication and cooperation between regulators, it is nonetheless regarded as sub-optimal. Again the obvious shortcoming of this approach pertains to hybrid financial products. In addition it is doubtful whether this regime can adequately address the growth and potential threat posed by shadow banks. Integrated approach is where there exists a single financial regulator responsible for both safety and soundness and business conduct considerations. The Central Bank of Kenya adopted this supervision approach, which takes a holistic view of the risks facing banks including those emanating from domestic and foreign banks as well as their non-bank subsidiaries (Mwenga, 2011). This model differs from the “Twin Peaks” model in that it combines both stability and business conduct considerations, whereas the “Twin Peaks” model separates stability and market conduct oversight.

Twin peaks is exemplified by regulation by objective. As the name suggests, this regime comprises two regulators, whose objectives are, alternatively, systemic stability, and market conduct and consumer protection. Claessens and Kodres, (2014) recommended that regulatory framework should include three tenets, that is,

adoption a system-wide perspective explicitly aimed at addressing market failures; understanding and incorporating into regulations agents' incentives so as to align them better with societies' goals and acknowledging that risks of crises will always remain, in part due to (unknown) unknowns, be they tipping points, fault lines, or spillovers.

The design of a regulatory framework may be either principles based or rules based. A principles based system is one in which regulators simply issue a set of principles with which regulated businesses must comply. A rule based system on the other hand, is where regulatory bodies impose principles of regulation and supplement them with detailed rules with which regulated businesses must abide in the fulfillment of those principles. These rules are codified into legislation, such as the Sarbanes Oxley Act and the Dodd-Frank Act. Mutual funds are among the financial products which require regulatory oversight in order to ensure fairness and efficiency (Caprio, 2013). Regulation in the financial market sector is necessary in order to ensure market integrity, protect investors, prevent infiltration by criminal entities, and guard against harmful activities by market players such as market rigging, misinformation, and overpricing (Mishkin, 2017). Andenas and Chiu, (2016) stated that financial regulation overcomes information asymmetry in securities and investment markets and the 'agency' problem between investment intermediaries and clients. The role of financial regulation is also to provide 'public goods' such as systemic stability, which underpins micro-prudential regulation and deposit guarantee schemes.

The legal and regulatory structure of a country can favor one mode of investment over another. For example, a country that banned mutual funds or restricted their use in tax advantaged savings schemes, would naturally have low fund adoption. There is a large body of literature which documents how differences in legal and regulatory environments affect financial development (Mukherji, 2011). Burkart, Grombo, Mueller and Panunzi, (2014) showed that the quality of the legal system is important for the enforcement of contracts and also captures the government's general attitude towards business. Investors face a trade-off when evaluating intermediated products

vs. Do-It-Yourself. They established that individuals are more willing to invest via an intermediary than “Do-It-Yourself” if the quality of the legal system is better. Alternatively, investors may prefer intermediaries when the legal framework is weak because the intermediaries substitute for the quality of the legal system. Likewise, McLean, Zhang, and Zhao (2012) showed that firms in these countries exhibit a higher sensitivity of investment to growth opportunities and, as a result, enjoy higher total factor productivity growth and higher profitability.

The rigor of the laws and rules in terms of how fund companies are governed and regulated is likely to strengthen investor confidence and their willingness to invest in mutual funds (Chandra & Kumar, 2011). Fund regulation can be evaluated if: regulatory approval is required to start a fund, regulatory approval is required before issuing a mutual fund prospectus, custodians are required to be independent from the mutual fund family, and mutual funds have to make eight or more fee and performance disclosures in advertising and fund information (Investment Company, 2017). The public finance literature is replete with examples of how tax policy can affect investment decisions (Alan *et al.*, 2010). The fund institutions are expected to grow stronger when tax rules make these investments attractive relative to others, through: tax preferences, laws which make tax avoidance easier with certain types of investments, and the absence of tax policies which impose multiple taxes on the same returns (double taxation). In addition, in countries where fund management companies receive a more favorable tax treatment of their earned income, one is likely to observe a larger mutual fund industry.

Reid, (2012) stated that a strong and appropriate regulation of capital markets is a prerequisite for building a mutual fund industry in any country. Stock, bond, and other securities markets must have rules of the road to prevent fraud, promote transparency, foster market liquidity, and ensure well-functioning trading and clearing of securities.

At the mutual fund level, regulation is needed to protect investors, provide adequate disclosure to make informed decisions, and limit potential conflicts of interest

between fund sponsors and fund investors. Igbinosea, Ogbeide and Babunde, (2017) found that a strong regulatory structure for funds have positive impacts on the size of the mutual fund industry, especially regulations addressing the process of approving fund starts, mandating fee, performance disclosures and conflicts of interest between FMC and fund shareholders. Countries that protect fund shareholders interests more vigilantly have larger industries. Although the specifics of fund regulation differ by jurisdiction, regulatory schemes often have common elements such as broad disclosure, standards for valuing assets, investment or diversification standards, or other provisions that seek to protect investors, such as limits on leverage or limiting relationships between fund sponsors and funds. In Kenya, mutual fund institutions are regulated and governed by, Capital Markets Act, Retirement Benefits Act, Income Tax Act and Companies Act (KPMG, 2013). The empirical findings indicate that financial regulation significantly impacts the banking sector performance while financial regulation has both short-run and long-run dynamic relationships with the banking sector performance in Nigeria.

2.4.6 Financial Innovation

Kibe, Namusonge and Iravo (2016) defined financial innovation as the technological advances that facilitate access to information, trading and means of payment. It also refers to the emergence of new financial instruments and services, new forms of organization and more developed and complete financial markets. Financial innovation should be more effective or improve efficiency relative to pre-existing applications and must be sustainable which means that it must introduce solutions that are environmentally and structurally sustainable. Financial innovations include institutional innovation, product innovation, and process innovation (Kibugo & Kimani, 2016). Institutional innovations relate to changes in microfinance structures, establishment of new types of financial intermediaries, and changes in the legal and supervisory framework. Product innovations include the introduction of goods or services with improved characteristics to respond to changes in market demand or to improve the efficiency. These may include new credit cards, personal unsecured loans, money transfers services, mobile banking and mobile lending. Process

innovations cover the introduction of new business processes leading to increased efficiency, market expansion and client data management (Qamruzzaman & Jianguo, 2017). Process innovations include electronic banking, automated teller machines (ATMs) and Real Time Gross Settlement (RTGS). Financial innovations provide easy access to accurate activities like disbursements, repayments, deposits, withdrawals, and money transfer. As such, there are minimal opportunities for errors.

Financial innovation is one of the most important drivers of growth of a financial institution (Leavin *et al.*, 2015). Financial intermediaries can create a competitive advantage through investing in innovative products and services and better delivery methods (Dosi *et.al.*, 2015). Financial innovations are results of the desire of financial market participants to establish new, efficient ways of increasing profits when providing goods and services (Mwinzi, 2014). Ajide, (2016), carried out a study on financial innovation and sustainable development in selected countries in West Africa and established that financial innovation reduces delivery costs, risk associated with financial instruments and avails more products, hence the increase in financial institutions' profitability and growth.

Kibugo and Kimani (2016) recommended that in-order to enhance firm performance the management of microfinance ought to focus on the firm activities aligned towards renewing routines, procedures and processes in an innovative manner in a firm. Laeven, Levine and Michalopolous (2015) developed a model that explains the financial innovations and firm's growth relationship. Their model's deduction is that financial institutions without financial innovation will stagnate, irrespective of the initial level of financial position. According to this model, Capital, Labour and Technology are the factors which influence growth of financial institutions. All the three variables have a positive impact on the output. As the technology factor increases over time, labor becomes more productive and this ultimately leads to a higher output. Thus, this model predicts that technological change has a positive impact on firms' growth. Namusonge, Muturi and Olanira, (2016) concluded that lack of financial innovation and aggressiveness are the major factors slowing down the growth of financial institutions in Nigeria Stock Exchange. Mwinzi

(2014) in a study on Kenya established that financial innovation has a significant, positive impact on economic growth with mobile transactions having a major impact. Tyavambiza and Nyangara (2015) did a study on financial and monetary reforms and the finance-growth relationship in Zimbabwe. Zacchaeus and Muturi, (2017) did a study on the impact of financial innovation on financial sector development in Kenya and established that financial innovation has significant impact on financial sector development, hence boosting market efficiency.

The evidence shows that financial innovation is not a passive response to financial market development. Instead, it is a critical tool for accelerating financial market development. Manyara, Muiro and Kenyanya, (2015) recommended that the management of commercial banks and the government should explore facilitate financial innovation in order to enhance Kenya's financial market development. Ammar, (2016) carried out a study on Innovation and Performance of Tunisian Banks. The empirical analysis was conducted on a sample composed of 11 banks Tunisian Commercial sides on the stock exchange and observed on the period 2005-2015. The results showed that innovation had statically significant effect on performance of Banks. Beck, (2013) established that countries where financial institutions spend more on financial innovation are better able to translate growth opportunities into GDP per capita growth and Industries that rely more on external finance and more on R&D activity grow faster in countries where financial institutions spend more on financial innovation.

Laeven *et al.* (2015) stated that different methods exist for measuring financial innovation, for example, they used ratio of broad money to narrow money, M2/M1, as indicators of financial innovation. Mazzucato, (2013) used the number of patents and the amount of research and development (R&D) as measures for innovation while Iveta, (2012) used the amount of intangible assets as a measure for innovation. Intangible assets are those assets on the balance sheet, which cannot be seen or touched. These consist of patents, trademarks, know-how, R&D, goodwill among others. Pesole and Haskel, (2011) used Patents, Research and development to sales ratio as measures of financial innovation in United Kingdom while Beck,(2013),

used new securities or products, new screening, monitoring and risk management tools or new types of institutions and markets. This study used expenditure on research and development and intangible assets as indicators of financial innovation.

2.5 Empirical Literature Review

The growth and survival prospects of new firms depends on their ability to learn about their environment, and to link changes in their strategy choices to the changing configuration of that environment (Mazzucato, 2013). Kumar and Goel (2014) examined what determines investment in mutual funds in India. The study was done with a sample size of 200 investors belonging to the city of Delhi. The study observed that investors ranked tax benefit and flexibility as two important benefits of mutual funds. Omar (2014) that sound financial management and financial market liquidity are crucial for the mobilization of funds through financial instruments like bonds, unit trust and equity.

Liquid financial markets are key foundation for the development of a mutual fund industry. Indeed, there is strong evidence that the relative size of a country's capital markets is correlated with the size of the mutual fund industry in that country (Parida, 2018). Omoruyi and Izeko (2015) established a positive relationship between the ratio financial market liquidity and economic growth in Nigeria. Ferreira *et al.* (2013) found a correlation across countries between mutual fund use and financial market liquidity. Klapper *et al.* (2012) established that mutual funds have greater market presence in countries where stock markets are more liquid. For example, France, the United States, and Australia all have a high level of financial market liquidity and high mutual fund market presence.

Makau and Jagongo (2018) studied the impact of portfolio choice on financial performance of investment companies in Kenya. The findings indicated that investment in bonds, real estate, equity and size of the company positively impacted on financial performance of unit trusts. Another study by Rop *et al.* (2016) investigated the effect of portfolio diversification on financial performance of

commercial banks in Kenya. The study concluded found a strong correlation between banks' product diversification and performance.

Mulwa and Kosgei (2016) investigated the relationship between portfolio choice and profitability of investments companies listed with Nairobi Securities exchange by employing a descriptive research design. The findings of the study indicate that investment is about selecting the right combination of stocks with minimal risks. Namusonge and Muturi (2016) established that one of the crucial aspects determining profitability of mutual funds in Kenya is diversification which involves holding a well-balanced portfolio.

Oyedijo (2012) carried out a study in Nigeria to examine the effect of portfolio diversification on performance of Insurance firms. The study concluded that more diversified insurers have better financial performance than concentrated firms. Yeung *et al.*(2012) observed that there should be a trade-off between diversification and returns. Fund managers often fail to leverage their own stock-picking skills when constructing diversified portfolios. Using quarterly data from 1999-2009, Yeung established that the concentrated portfolios outperformed diversified portfolios. Warren Buffet (2015) stated that "wide diversification is only required when investors do not understand what they are doing".

Austin, (2017) stated that a strong regulation; demand-side factors such as a country's per capita income and the prevalence of defined contribution pension plans; supply-side factors such as costs of, or time to establish, funds and distribution networks, and the size, liquidity, and trading costs of a country's stock and bond markets are responsible for the growth of mutual funds across the countries. Aroni, Namusonge and Sakwa, (2014) sought to establish effect of information on investors' confidence and established that availability of financial information has a positive correlation with investors' confidence. Plantier (2014), posited that strong and appropriate regulation of long-term mutual funds the favourable returns on capital market instruments and the development in a given country of a defined contribution plan system dictates the growth of mutual funds. Mwaura *et al.* (2014),

established that risk, regulatory frame work and transaction costs are the major factors affecting the performance of mutual funds in Kenya.

Nevertheless, Omarova (2011) argued that for any meaningful long-term regulatory reform, the financial services sector must seriously consider the potential role of industry self-regulation as a key mechanism of controlling and minimizing systemic risk.

Bilal (2017) established that mutual fund industry in India was constrained by low penetration ratio, lack of product differentiation, lack of investor awareness and ability to communicate value to customers. Guyo (2017) established that positive entrepreneur perception of the fairness and affordability of the courts, access to formal credit, connections to utilities, lower incidences of crime, entrepreneur education and experience positively affect MSE growth. Parida (2018), found out that higher competition decreases the chances of each fund to outperform the others and adversely affect their ability to attract new investments, and the funds respond by decreasing marketing expenses. Makau and Jagongo (2018) found that product diversity and customer diversity were positively associated with firm performance, whereas geographic diversity is negatively associated with firm performance.

Olanira, Namusonge, Muturi, (2016) concluded that lack of financial innovation and aggressiveness are the major factors slowing down the growth of financial institutions in Nigeria Stock Exchange, Mwinzi (2014) established that financial innovation has a significant, positive impact on economic growth with mobile transactions having a major impact, Zacchaeus & Muturi, (2017) did a study on the impact of financial innovation on financial sector development in Kenya and established that financial innovation has significant impact on financial sector development, hence boosting market efficiency. Ammar, (2016) carried out a study on Innovation and Performance of Tunisian Banks. The empirical analysis was conducted on a sample composed of 11 banks Tunisian Commercial sides on the stock exchange and observed on the period 2005-2015. The results showed that innovation had statically significant effect on performance of Banks.

Wamoto, Ayuma and Kimani (2016) found out that Entrepreneurial resource/innovation has positive and significant effect on the performance of government funded youth group Enterprises while Entrepreneurial Vision, Entrepreneurial skills and Leadership skill all have no significant effect on the performance of youth enterprises. Olanira, Namusonge and Muturi (2016) concluded that lack of innovation and aggressiveness are the major factors slowing down the growth of SME's in Nigeria Stock Exchange.

This study has adopted investors' perception, financial market liquidity, portfolio diversification, regulatory framework and financial innovation as the major drivers of mutual fund institution growth

2.6 Critique of Existing Literature.

Existing literature reviewed gave a mixed result with no clarity on what really determines the growth of mutual fund institutions. Agarwal and Jain (2013), Kothari and Mindargi (2013) observed that investors ranked returns and tax benefits as the most important factors influencing investments in mutual funds. Khan and Agarwal (2017) stated that the factors influencing investments into funds in the order of importance are liquidity, flexibility, tax savings, service quality and transparency. Chawla (2014) revealed that the most important reason cited for investment into mutual funds was tax savings, followed by higher returns and capital appreciation while Kumar and Goel, (2014) stated that investors ranked tax benefit and flexibility as two important benefits of mutual funds. Kumar, (2016) revealed that savings, security for future, regular income and capital appreciation are the reasons cited for mutual fund investments. Velmurugan, Selvan and Nazar, (2015) observed that there is a strong relation between age, education and awareness of mutual. This was in contradiction to Ramanujam and Bhuvanewri, (2015) who showed that there is no significant relationship between age and opinion towards facilities provided by mutual funds.

Lutwana (2010) Wyman (2016) and established that the level of financial market liquidity, among others, is the major factor controlling the growth of mutual

funds in Uganda. Ferreira *et al.* (2012) concluded that funds located in countries with liquid financial markets and strong legal institutions display better performance. All these are in contrast to Suppa-aim (2010) who concluded that the highest liquidity mutual fund portfolio significantly underperforms the market in contrast to the lowest liquidity mutual fund portfolio, which significantly outperforms the market hence evidence challenging the role of market liquidity in promoting the performance of mutual funds.

Namusonge and Muturi (2016); Oyedijo (2012); Makau and Jagongo (2018) observed that diversification is key to any business growth. However, Doaei, Anuar and Ismail, (2015), Yeung *et al.* (2012) observed that portfolio concentration outperforms diversified portfolios while Manyuru, Wachira and Amata, (2017) established that diversification reduces firm value. Aroni, Namusonge and Sakwa, (2014), Plantier (2014), Wekesa *et al.* (2014); Mwaura *et al.* (2014) all agreed that regulatory frame work influences greatly the growth of mutual funds in an economy. Nevertheless, Omarova (2011) argued that self-regulation is a key mechanism of controlling and minimizing systemic risk in financial markets. Ombui and Amenyaa (2016) established that financial innovation affects financial performance of Savings & Credit cooperative societies in Kiambu County, Kenya. Mwangi and Namusonge (2014) also established that process innovations are more critical to garment making businesses yet they are the most challenging in terms of costs and accessibility. Mwinzi (2014) established that financial innovation has a significant, positive impact on economic growth with mobile transactions having a major impact.

Beck, (2013) concluded that too much or inefficient innovation can have serious negative consequences for the overall economy and firms. Bara, Mugano and Roux (2016) argued that the Global Financial Crisis of 2007 was caused by financial innovation. Bara, Mugano and Roux (2016) were of the view that securitization and subprime mortgages may have exacerbated the financial crisis. Mendoza and Gras, (2017) argued that financial innovation can introduce complexity to exploit uninformed investors. The results of the twenty-first century financial innovation process are increased product and institutional complexity, and increased market

fragility (Gubler 2011). Stiglitz (2010) noted that some of the financial products increased the problems of information asymmetry, exacerbating problems of moral hazard, and so contributed to the world economic crises being experienced at the time.

2.7 Research Gaps

From empirical literature reviewed, there are several literature gaps that are to be filled by this study. Firstly, there is lack of empirical studies on what really drives the growth of mutual fund institutions among Kenyan listed firms since most of the studies done on growth of mutual funds have almost exclusively been derived from advanced economies outside of Kenya, particularly in China, USA and UK. From this perspective, studying determinants of growth of mutual fund institutions among Kenyan firms helps expose the inter-linkage between identified/ suggested drivers and their effects on growth of mutual fund institutions in an environment with unique attributes like those in the Kenyan environment and other emerging markets.

Secondly, most of the studies carried out had empirically conflicting results, for example; on product diversification, Kumar and Goel (2014), Omar (2014), Namusonge and Muturi (2016) and Makau and Jagongo (2018) established that financial securities diversification is one of the crucial aspects determining growth of mutual fund institutions while Yeung *et al.*(2012) and Warren Buffet (2015) stated that concentrated portfolios have higher returns as compared to diversified portfolios, on Regulatory framework, Aroni, Namusonge and Sakwa, (2014), Nyarku and Oduro (2017) and Mwaura *et al.* (2014), established that risk, regulatory frame work and transaction costs are the major factors affecting the performance of firms while Omarova (2011) argued that any meaningful long-term regulatory reform in the financial services sector must seriously consider the potential role of industry self-regulation as a key mechanism of controlling and minimizing systemic risk and on financial innovation, Ombui and Amenity (2016), Mwangi and Namusonge (2014), Ngure, Kimani and Kariuki (2017) and Qamruzzaman and Jianguo, (2017) established that innovations are critical for success of any firm while

Mwinzi (2014) and Beck, (2013) conclude that too much or inefficient innovation can have serious negative consequences for the overall economy and firms.

Although Kenya's mutual fund schemes are fairly developed as compared to her neighbours, there is room for even better performance, hence the need to establish the key drivers.

Finally, much of the literature on the performance of mutual fund institutions in Kenya has centered on other areas, for example, Akoko (2014), looked at effects of mobile transactions on mutual funds' performance, Iraya (2014), looked at how institutional characteristics affect mutual fund performance, Nyanamba *et al.* (2015) looked at factors affecting profitability of mutual funds and Gitagia (2013) and Wambugu (2013), all looked at fundamental factors affecting mutual fund performance. Wamoto, Ayuma Kimani (2016) looked at what influences performance of government funded youth group Enterprises in Kenya. Kibe *et al.* (2016), established that innovation is a major determinant of growth of enterprises in Kenya.

2.8 Summary

The chapter discussed the theories which formed the basis for determinants of growth of mutual fund institutions. The theories include; Modern Portfolio Theory, Agency Theory, Liquidity theory and Financial Innovation Theory. The conceptual framework and discussion of research variable then followed. The variables are, investors' perception, financial market liquidity, portfolio diversification, regulatory framework and financial innovation. The chapter then critiqued existing literature and identified the research gaps.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction.

This chapter discusses the research design, population, the sampling frame, data collection, data analysis and finally the chapter summary. The chapter specifically looked at research philosophy, description of the research design, the target population, the survey method and the measurement scales for operationalizing the main study variables and how reliability and validity were tested. The chapter ends with pilot testing, data analysis techniques and the measurement of variables.

3.2 Research Philosophy

Researcher adopted positive objectivism research philosophy. Positivism entails working with an observable social reality and the end product can be law-like generalisations similar to those in the physical and natural sciences. Objectivism entails realist ontology (which holds that social entities exist in reality external to and independent from social actors), epistemology focused on the discovery of truth by means of observable, measurable facts, and claims to have a value-free, detached axiology.

Objectivism is the basis for realism in ontology, positivism in epistemology, determinism of human nature and the application of nomothetic methodology for solving research problems. Ontology relates to nature of reality; either things have existence or they are a product of one's imagination. This study assumes that things exist. Epistemology is concerned with nature, validity and limits of inquiry (Shane & Venkataraman, 2012). This concern how humans can gain knowledge of the world. Human nature has two equally opposing dimensions; either human being has control or they are controlled by circumstances. The study adopts the former. Determinism assumption accords human beings the free will to acquire knowledge to improve their circumstances or explain phenomena around them. Study's axiology is

that data will be collected using questionnaires because the researcher believes that data collection should be free from any kind of influence. In this study, research proves or disproves formulated hypothesis through collection of data, modeling and analysis.

3.3 Research Design

Descriptive design was preferred due to its ability to combine quantitative and qualitative methods (Weeks & Namusonge, 2016). Descriptive studies data are usually collected at once perhaps over a period of days, weeks or months in order to answer research questions. Descriptive study design is concerned primarily with establishing whether there is a relationship among the variables by comparing the particular characteristics of a specific population of subjects, either at a fixed point in time or at varying times for comparative purposes. Once the sample is representative of the relevant population, cross sectional study design ensure that any subsequent assessments of the attributes of that population are accurate and the findings are generalizable – in other words, they have population validity (Saunders *et al.*, 2009). In descriptive survey design, the research attempts to determine if there is an existing relationship between the study variables at any point in time and establish reasons for an existing relationship among the groups or individuals by attempting to identify the main factor for a difference between groups or individuals. In descriptive survey design no variable can be manipulated as it deals with existing groups already discriminated by the independent variable.

3.4 Target Population

The unit of the study was fund managers of registered mutual fund institutions in Kenya as at end of the year 2016 and their deputies. There were a total of 61 units in Kenya as at the end of 2017 (NSE, 2017). The 61 units are grouped as per Table 3.1.

Table 3.1: Population Size

Serial no.	Fund category	Target population
1	Money market fund	13
2	Fixed income fund	12
3	Managed retirement fund	6
4	Equity fund	16
5	Balanced fund	11
6	Unit trust fund	3
Total		61

Source; Capital Market Authority 2017.

This population was targeted due to availability of financial information about them and strict requirements of listing, qualify them as the best managed companies in Kenya. A complete list of Mutual Fund Institutions listed at the Nairobi Securities exchange (NSE) and units under their control is attached in Appendix III.

3.5 Sampling Frame

The sampling frame for this study consist of all the registered mutual fund institutions in the Nairobi Securities Exchange as at December 2016 (NSE Manual, 2017). Polit and Lake, (2013) defined sampling frame as the technical name for the list of the elements from which the sample is chosen from while Kothari (2009) defines the term sampling frame as a list that contains the names of all the elements in a universe. The major reason for choosing firms listed in Nairobi Securities Exchange is due to accessibility to the required data by the fact that it's a legal requirement of the companies Act Cap 486 for listed companies to publish their audited financial statements which provided data required by this study.

3.6 Sample and Sampling Technique

Stratified random sampling was used to select the respondent persons (fund managers and their deputies) to be interviewed for the study. The fund managers and

their deputies were chosen because they are considered to poses the right knowledge to respond to the questionnaires. The sample was obtained from the classification list attached in Appendix III. Simple random sampling was then used to select the sample from the strata since they are homogeneous group. To compile the sampling frame, 53 funds were selected out of a total population of 61 using the formula which was developed by Saunders, Lewis and Thornhil, (2009), given by equation below:

$$n_0 = \frac{pqz^2}{e^2} \dots\dots\dots 3.1$$

If the population is assumed be over 10,000 and $p = 0.5, q = 0.5, z = 1.96$ and $e = 0.05$ then $n_0 = 385$. Since the target population is 61, adjusted sample size will be given by equation below:

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}} \dots\dots\dots 3.2$$

Where;

z represents the reliability coefficient at 95% confidence level (1.96)

n_0 represents the standard sample size (385)

p represents the population proportion (assumed to be 0.5)

q represents the population proportion (assumed to be 0.5)

N represents the population size

e represents error margin.

The respondents were the unit or fund managers and their deputies. Therefore, a total of 106 respondents were expected.

Table 3.2: Sample size.

Fund category	Target Population	Sample size
Money market fund	13	11
Fixed income fund	12	10
Managed retirement fund	6	5
Equity fund	16	14
Balanced funds	11	10
Unit trusts	3	3
Total	61	53

3.7 Data Collection Methods

Both primary data and secondary data were used for this study. Primary data was collected with assistance of research assistant while secondary data was obtained from the published financial results from sampled population.

3.7.1 Primary data

The primary data was collected by use of a questionnaire instrument. The fund/unit managers and their deputies were the targeted respondents for the purpose of the study. Permission for data collection was sought and given and data was collected using a drop off and pick up method. The questionnaires were dropped at the offices of the selected fund managers and their deputies and picked after a period of one week. The period was meant to give the respondent enough time to critically think and where possible respond correctly. A cover letter clearly explained the purpose of the research and the expected benefits both to the practitioners and the academicians accompanied the questionnaires. This method was chosen because it reduces Non-response bias in surveys (Allred & Ross, 2011).

3.7.2 Secondary Data

Secondary data was collected from income statements, statements of financial positions, records of interest rates, amount of money invested in mutual fund institutions, interests paid by mutual fund institutions, Nairobi Securities Exchange reports, among others. All these documents were sourced from the registrar of companies' offices as well as the fund institutional portal.

3.8 Data Collection Procedure

As highlighted by Lohndorf and Diamantopoulos (2014), it is crucial to get the appropriate informants in order to get accurate and reliable answers. Since the research focused at strategic and functional level, it was then imperative to have fund managers and their deputies respond to the questionnaires. The data collection instrument in this study was a questionnaire. The research instrument was conveyed to the respondents through the drop and pick technique. The researcher approached each mutual fund institution, introduced himself to the relevant respondents by explaining to them the nature and purpose of the study and then left the questionnaires with the respondents for completion and picked later after one week. Before the questionnaire was given out, the researcher first sought for authorization from the particular mutual fund institution management to collect data. This method was recommended because it gives the respondent time to carefully synthesize the kind of information to be given (Allred & Ross-Davis, 2011). Further explanations and probing was done where necessary in order to achieve completeness and clarity on the responses. To minimize non-response rate, a cover letter accompanying the questionnaire clearly explained the purpose of the research and the expected benefits both to the practitioners and the academicians was done and the respondents were carefully selected so as to include the ones who understood financial decision making process.

3.9 Pilot Study

A pilot study was done to ascertain the ability of research instrument in generating reliable information. A set of questionnaires was pre-tested to establish both construct and content validity. Respondents in the pre-test were drawn from six mutual fund managers and their deputies, representing 11%, slightly above ten percentage recommended by Saunders *et al.* (2009). In each of the six funds, two questionnaires were filled by senior managers of each fund type. The pre-tested respondents were not part of the study population since this would have brought about assessment biases and contamination of the respondents (Saunders *et al.*, 2009).

3.9.1 Reliability of the instruments

Sekaran and Bougie, (2015) postulate that the reliability of the study measures could be assessed by computing Cronbach's alpha coefficients, which could be used to assess the internal consistency among the research instrument items. Given variables

x_1, x_2, \dots, x_k and $x_0 = \sum_{j=1}^k x_j$ then the Cronbach's alpha is defined as

$$\frac{k}{k-1} \left(\frac{\sum_{i \neq j} \text{cov}(x_i, x_j)}{\text{var}(x_0)} \right) = \frac{k}{k-1} \left(1 - \frac{\sum_{j=1}^k \text{var}(x_j)}{\text{var}(x_0)} \right)$$

Table 3.3 indicates the Cronbach's alpha coefficient for the variables.

Table 3.3: Reliability results

Variables	Number of Items	Co-efficient Alpha	Comment
Investors' perception.	12	.770	Accepted
Financial Market Liquidity	12	.806	Accepted
Portfolio diversification	12	.816	Accepted
Regulatory framework	12	.784	Accepted
Financial innovation	12	.878	Accepted
Growth of Mutual fund Institutions.	12	.770	Accepted

Moshen and Reg (2011) noted that reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness of the measure. The Cronbach's alpha coefficient should range between 0 and 1 (Vaus, 2014). Higher alpha coefficient values meant that scales were more reliable. Sekaran and Bougie, (2015) recommended that acceptable alpha was at least 0.70 or above.

3.9.2 Validity of instruments

According to Saunders *et al.* (2009), validity of an instrument refers to whether the instrument measures what it is intended to measure, this is done by ensuring that there was no systematic error and also the random error was as small as possible. The instrument used for data collection was questionnaires. Questionnaires were subjected to both content and construct validity test. To establish content validity, the researcher carried out a thorough review of the literature in order to validate the identified items to measure the concepts. The instruments were later reviewed by experts. All the aspects of the questionnaire were pre-tested including content, comprehension, wording, layout, respondents' reaction and instructions (Lohndorf & Diamantopoulos, 2014). The feedback obtained was used to review the questionnaire before administering it to the study respondents.

3.10 Data Analysis and Presentation

The data was collected, processed and analyzed with respect to the study objectives, using both descriptive and inferential statistics. The tool of analysis used for this study was Statistical Package for Social Sciences (SPSS) version 22.0 for descriptive data and Microsoft Excel for quantitative data. The data was analyzed using descriptive statistics such as mode, median, mean, standard deviation. Research hypotheses were tested by use of F-Statistics (ANOVA) to measure and determine the statistical significance between the variables and to draw conclusions of the study. The data was also subjected to Kolmogorov-smirnov test for normal distribution and the result showed that data was normally distributed.

Correlation and multiple linear regression analyses were also used to determine the relationship between the investors' perception, financial market liquidity, portfolio diversification, regulatory framework and financial innovation and the growth of mutual fund institutions. Univariate analysis was first done for each independent variable to establish their influence on the dependent variable and as preparation for multivariate analysis.

3.10.1 Multiple Regression Analysis

Growth determinants may affect a firm wholesomely, that is, all determinants, Investors' perception, financial market liquidity, Portfolio diversification, Regulatory framework and Financial innovation. Alternatively, a company's growth may be influenced by one or two variables mentioned above, hence the need for the researcher to adopt a multiple regression model. The researcher developed-model was used to determine the relationship between independent and dependent Variables. The Researcher adopted a multiple linear regression equation to show the relationship between variables. The model used is multiple regression model which is given by the following equation:

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

Where:-

\hat{y}_i is the estimated value of the dependent variable, Growth of mutual fund institutions.

X_1 is investors' perception.

X_2 is market liquidity.

X_3 is portfolio diversification.

X_4 is regulatory framework.

X_5 is financial innovation

$B_0, \beta_1, \beta_2, \dots, \beta_5$ are regression coefficients to be estimated.

ε is the random term.

3.10.2 Variable Definition and Measurement

The study used Likert scale for item analysis to determine the influence of identified variables on the growth of mutual fund institutions and ration scale for growth variables. A likert-scale is a psychometric tool used to gauge attitudes, values, and opinions in educational and social sciences research (Josji, Kale, Chandel and Pal, 2015). The assessment was done using the 5-point scale on the questionnaire. Moshen and Reg (2011), as cited by Sasaka *et al.*, (2014), show that Likert scale was easy to use in respondent studies. Table 3.4 summarized the variables definition and measurement.

Table 3.4: Variable Definition and Measurement

Variable Scale	Indicators	Measurement
Investors' perception	1. Tax benefits	5-Point
	2. Affordability	Likert Scale
Financial market liquidity	1. Transition period	5-Point
	2. Number of people	Likert Scale
	3. Size of orders	
	4. Recovery period	
Portfolio diversification	1. Number of products	5-Point
	2. Investors' risk awareness	Likert Scale
	3. Behaviour of returns	
Regulatory framework	1. Registration process	5-Point
	2. Ethical trading	Likert Scale
	3. Full disclosure	
Financial innovation	1. Value of intangible assets	5-Point
	2. Expenditure on research and development	Likert Scale
Growth of mutual fund institutions	1. Return on investment	5-Point
	2. Number of mutual fund institutions	Likert Scale
	3. Assets under management	

3.10.3 Hypothesis Testing

The study was based on the premise that the identified independent variables had effects on the dependent variable, growth of mutual fund institutions. Accordingly, five relevant hypotheses were set to guide the study in the conceptual framework. All the hypotheses were tested at 95 percent confidence level (level of significance, $\alpha = 0.05$). To test the stated hypotheses, the p-value was used to test the significance of each independent variable to the dependent variable. If p-value was less than 0.05, we accepted the stated null hypothesis that the variable was significant. This would lead to accepting the stated hypothesis that the independent variables (i.e. investors' perception, Portfolio Diversification, Regulatory Framework and Financial Innovation) had a significant effect on the dependent variable (Growth of mutual fund institutions). The following table outlines the relevant two-tail hypotheses tests and the respective regression models.

Table 3.5: Summary of univariate Statistical Tests and Hypotheses

Hypothesis statement	Hypothesis test	Decision rule and anticipated model
H01: There is no significant effect of Investors' Perception (IP) on growth of mutual fund institutions (GMFI).	$H0_1 \beta_1 \neq 0$ i) Anova -To test the overall Robust of simple regression ii)T-test-to test significance relationship of the variables iii) Pearson correlation to test the partial correlation between the variables.	$y = \beta_0 + \beta_1 X_1 + \mathcal{E}$ To reject Ho when the P-value is ≤ 0.05 otherwise fail to reject when p-value is > 0.05
H02: There is no significant effect of Financial Market Liquidity (FML) on growth of mutual fund institutions (GMFI).	$H0_2 \beta_2 \neq 0$ i) Anova -To test the overall Robust of simple regression ii)T-test-to test significance relationship of the variables iii) Pearson correlation to test the partial correlation between the variables.	$y = \beta_0 + \beta_2 X_2 + \mathcal{E}$ To reject Ho when the P-value is ≤ 0.05 otherwise fail to reject when p-value is > 0.05
H03: There is no significant effect of Portfolio diversification (PD) on growth of mutual fund institutions (GMFI).	$H0_3 \beta_3 \neq 0$ i) Anova -To test the overall Robust of simple regression ii)T-test-to test significance relationship of the variables iii) Pearson correlation to test the partial correlation between the variables.	$y = \beta_0 + \beta_3 X_3 + \mathcal{E}$ To reject Ho when the P-value is ≤ 0.05 otherwise fail to reject when p-value is > 0.05
H04: There is no significant effect of Regulatory framework (RFW) on growth of mutual fund institutions (GMFI).	$H0_4 \beta_4 \neq 0$ i) Anova -To test the overall Robust of simple regression ii)T-test-to test significance relationship of the variables iii) Pearson correlation to test the partial correlation between the variables.	$y = \beta_0 + \beta_4 X_4 + \mathcal{E}$ To reject Ho when the P-value is ≤ 0.05 otherwise fail to reject when p-value is > 0.05
H05: There is no significant effect of Financial Innovation (FI) on growth of mutual fund institutions (GMFI).	$H0_5 \beta_5 \neq 0$ i) Anova -To test the overall Robust of simple regression ii)T-test-to test significance relationship of the variables iii) Pearson correlation to test the partial correlation between the variables.	$y = \beta_0 + \beta_5 X_5 + \mathcal{E}$ To reject Ho when the P-value is ≤ 0.05 otherwise fail to reject when p-value is > 0.05

All the hypotheses were tested at 95 per cent confidence level (level of significance).

3.10.4 Ethical considerations

Honesty in documentation and equal treatment of all participants as suggested by Akpabio and Esikot (2014) was maintained throughout the study. Informed consent was sought from the participants by observing the three elements of informed consent, that is, capacity, information and voluntariness, as recommended by Drew and Hardman, (2007). Confidentiality of information collected has been maintained just as was promised during data collection activities and all participants were accorded the respect they deserve.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The chapter describes the response rate, respondent profile, data coding and data description as well as carrying out factor analysis of the measures of variables. Subsequently, the chapter presents the research results which are presented using a variety of inferential and descriptive statistics that highlight the major characteristics of the data and tests the study's hypotheses.

4.2 Response Rate

Response rates have historically been an important rough-and- ready yardstick to judge data quality (Rindfuss *et al.*, 2015). Questionnaires were self-administered and the study population comprised of 53 funds whereby a total of 106 questionnaires were given out by the researcher to respondents, that is, two questionnaires to each of the 53 randomly selected funds. Eighty two (82) questionnaires were completely filled, collected and used for analysis in this study. This presents a response rate of 77.35% of the target population. Theuri, Mugambi and Namusonge (2015) and Duncan *et al.*, (2015), observed that a 50% response rate is adequate, 60% and is good while 70% and above response rate is very good. Based on this assertion, the response rate of 77.35% was considered very good and provides a smaller margin of error and good precision.

Table 4.1: Response Rate

Response	Frequency	Percentage
Responded	82	77.36
Non-response	24	22.64
Total	106	100

4.3 Test of Statistical Assumptions

Tests of statistical assumptions including; normality, linearity, independence of error terms, homoscedasticity and collinearity were done to ride the data of any of these factors which may influence the outcome. Each of these were tested and the findings were as detailed hereafter.

4.3.1 Test of normality

Many statistical procedures including correlation, regression, t-tests, and analysis of variance, are based on the assumption that the data follows a normal distribution or a Gaussian distribution. It was assumed that the population from which the samples were taken were normally distributed. The normality tests are supplementary to the graphical assessment of normality. The test revealed that data collected was normally distributed since the P- values were all above 0.05.

4.3.2 Multi-Collinearity Test

Ruhiu, Nugi and Waititu (2014), showed that a situation in which there is a high degree of association between independent variables is said to be a problem of multi-collinearity which results into large standard errors of the coefficients associated with the affected variables. Multi-collinearity can occur in multiple regression models in which some of the independent variables are significantly correlated among themselves. In a regression model that best fits the data, independent variables correlate highly with dependent variables but correlate, at most, minimally with each other. Multi-collinearity can also be solved by deleting one of the highly correlated variables and re-computing the regression equation. Multi-collinearity is associated with Variance Inflation factor (VIF) and tolerance. A commonly given rule of thumb is that VIF's of 5 or higher with a tolerance value below 0.2 may be a reason for concern (Makori & Jagongo, 2013). The data were tested to see if there is a presence of autocorrelation and multi-collinearity in the data by through Variance Inflation factor (VIF) statistics (Ruhiu *et al.*, 2014). The results showed that there was no Multi-collinearity among the independent variables.

4.3.4 Linearity Test

The test for Linearity was done using Analysis of Variance (ANOVA) to determine whether the relationship between independent variables and dependent variable was linear or not. Linear regression needs the relationship between the independent and dependent variables to be linear. It is also important to check for outliers since linear regression is sensitive to outlier effects. Linear regression makes several key assumptions; Linear relationship, Multivariate normality, no or little Multi-collinearity and auto-correlation. A good research in a regression model should have linear relationship between independent and dependent variables. The test proved that there was linearity between dependent and independent variables.

4.3.5 Homoscedasticity Test

Kaiser-Meyer-Olkin (KMO) test measures the suitability of data for factor analysis. The test measures sampling adequacy for each variable in the model and for the complete model. The statistic is a measure of the proportion of variance among variables that might be common variance (Hadi, Abdullah & Sentosa, 2015). The lower the proportion, the more suited the data is for Factor Analysis. KMO returns values between 0 and 1. Hadi, Abdullah and Sentosa (2015) describes a KMO index of < 0.4 as unacceptable, between 0.4 and 0.6 as poor but acceptable, between 0.6 and 0.8 as good and above 0.9 as excellent.

Bartlett's Test of Sphericity measures whether samples are from populations with equal variances. Equal variances across populations is called homoscedasticity or homogeneity of variances. Homoscedasticity describes a situation in which the error term in the relationship between the independent variables and the dependent variable is the same across all values of the independent variables. Test of homoscedasticity (homogeneity of variance/ uniformity of variance) was undertaken to determine whether the random disturbance in the relationship between the independent variables and the dependent variable is the same across all values of the independent variables. The absence of homoscedasticity invalidates ordinary least squares estimator as the best linear unbiased estimator (BLUE) (Garison, 2012).

Also, the Bartlett's Test of Sphericity relates to the significance of the study and thereby showed the validity and suitability of the responses collected to the problem being addressed through the study. For Factor Analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05 (Theuri *et al.*, 2015).

4.4 Experience and Education of Fund Managers

Table 4.2 showed that most fund managers had experience of less than 5 years indicating lack of experience on management of mutual fund institutions in Kenya. Just 7.3% of the managers had experience of over 7 years.

Table 4.2: Experience and education of fund managers

Variable	Item	Frequency	Percentage
Experience	Less than 3 years	20	18.2
	3-5 years	36	32.7
	5-7 years	18	16.4
	Over 7 years	8	7.3
	Total	82	74.5
Level of Education	Diploma	0	0
	Bachelors	62	56.4
	Masters	20	18.2
	Doctorate	0	0
	Total	82	74.5

Table 4.2 also indicated that all the responding managers had at least Bachelor's degree in business related fields. This indicates that the managers have the necessary technical skills to adequately analyse financial market situations and advice their clients accordingly.

4.4.1 Growth of Mutual fund Institutions Results

This section described the detailed analysis of data collected with respect to growth of mutual fund institutions listed in NSE in Kenya.

4.4.2 Descriptive Results of Growth of Mutual Fund Institutions

Growth of mutual fund institutions was assessed by three measures namely, return on investment, number of firms and Asset under management. Respondents were approached with different statements seeking the growth of mutual fund institutions. Descriptive data shown on Table 4.3 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.3: Descriptive Statistics

Opinion statement	N	Minimum	Maximum	Mean	Std. Deviation
1. Mutual funds in Kenya report high Profit.	82	2	5	3.67	1.101
2. Mutual funds in Kenya pay high Dividends/ interest to their investors.	82	2	5	3.57	1.043
3. Mutual funds in Kenya pay high returns on investment.	82	2	5	3.77	1.034
4. Investors in mutual funds have been increasing in Numbers.	82	2	5	3.66	1.033
5. The number of mutual fund institutions have increased tremendously in Kenya.	82	2	5	3.76	1.025
6. Investors have steadily increased their investments in Mutual fund institutions.	82	2	5	3.85	1.056
7. Mutual fund institutions have tremendously invested in real estates and other fixed assets.	82	2	5	3.48	1.102
8. Net asset value of mutual fund products have had a steady increase.	82	1	5	3.20	1.271

Key: Ranked on a scale:1.0-1.7(strongly disagree); 1.8-2.5(disagree); 2.6-3.3(neutral); 3.4-4.1(agree); and 4.2-5.0(strongly agree)

Table 4.3 showed that respondent posted a mean of 3.67 meaning that they agreed with these opinion statements. On the increase on firms, the respondents posted a mean of 3.70 implying an agreement with the opinion statements and for asset under management, the respondent posted a mean of 3.54 indicating an agreement with the opinion statements. On the other hand respondent were neutral on steady increase on net asset value. Therefore, on average, most of the respondents agreed that there has been growth in terms of return on investment, asset under management and number of firms. These findings were consistent with the findings by Olando *et al.* (2012) who reported that return on investment determine the long-term growth of a company. Mwangi and Njuguna (2014) also concurred with this findings that return on investment is a good indicator of profitability. Ahmed *et al.*, (2015) posted that asset under management is a good measure of growth of mutual fund institutions.

4.4.3 Factor Analysis Results of Growth of Mutual Fund Institutions in Kenya.

The broad purpose of factor analysis is to summarize data so that relationships and patterns can be easily interpreted and understood. It is normally used to regroup variables into a limited set of clusters based on shared variance (Yong and Pearce, 2013).

Table 4.4: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.913	61.413	61.413	4.913	61.413	61.413	3.067	38.343	38.343
2	1.200	15.005	76.418	1.200	15.005	76.418	3.046	38.075	76.418
3	.786	9.826	86.243						
4	.664	8.306	94.549						
5	.220	2.747	97.297						
6	.103	1.291	98.588						
7	.073	.908	99.496						
8	.040	.504	100.000						

Extraction Method: Principal Component Analysis.

Factor analysis was done on growth variables where constructs were subjected to a variance tests through the principal component analysis test. The principle component analysis was thus used for data reduction and interpretation of large set of data. All the measures of growth of Mutual fund Institutions were subjected to factor analysis and the results showed that there were two factors extracted explaining the growth of Mutual fund Institutions which accumulated to 61.418 of the total variance in this construct. Factor one was the highest with 38.0343 while the second with 15.005 %. These two factors had their Eigen values greater than 1 and had the greatest influence on the growth of mutual fund institutions as they explain about 76.418% of the total variance as shown in Table 4.4.

4.4.4 Growth Rotation Component Matrix Results

Table 4.05 depicts the rotated component factor loadings for determinants of growth measures. Component 1 was Return on investment which had the four constructs and Component 2 was Asset under management (AUM) which also had four constructs.

Table 4.5: Rotated Component Matrix^a

Opinion statement	Factor Loading	
	ROI	AUM
1. Mutual fund institutions in Kenya report high Profit.	.876	
2. Mutual funds in Kenya pay high Dividends/ interest to their investors.	.740	
3. Mutual funds in Kenya earn high returns on investments.	.788	
4. Investors in mutual funds have been increasing in Numbers.	.771	
5. The number of mutual fund institutions have increased tremendously in Kenya.	.540	
6. Investors have steadily increased their investments in Mutual fund institutions.		.949
7. Mutual fund institutions have tremendously invested in real estates and other fixed assets.		.900
8. Net asset value of mutual fund products have had a steady increase.		.631

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

All the variables of growth had a factor loading of higher than 0.5 as shown in Table 4.5. Rusuli *et al.* (2013), showed that each individual variable must have value of 0.5 and above. The component values indicate that they are highly interrelated with each other.

Table 4.6: Descriptive results of growth mutual fund institutions

Growth of mutual fund institutions		
Measurement	Return on Investment	Asset under management.
Mean	3.6707	3.5081
Cronbach' Alpha.	.885	.814

Key: Ranked on a scale; strongly disagree (1.0-1.7), disagree (1.8-2.5), indifferent/neutral (2.6-3.3), agree (3.4 - 4.1) and strongly agree (4.2-5.0).

Respondents posted a mean of 3.6707 for return on investment as an indicator of growth of mutual fund institutions and a mean of 3.508 for assets under management as an indicator for growth of mutual fund institutions.

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali *et al.*, 2016). The findings indicated that return on investments measures had 0.885 while those of assets under management had 0.814 as shown in Table 4.6. Growth measures depicted Cronbach's alpha of above the suggested value of 0.7 hence the study was reliable.

4.4.5 Secondary Data

Secondary data was collected from various sources including but not limited to; Capital Market Authority reports, both audited income statements as well as statement of financial positions of various funds, Africa asset management 2020 among others from 2006 to 2116. The data collected was edited, cleaned, summarized and presented as follows;

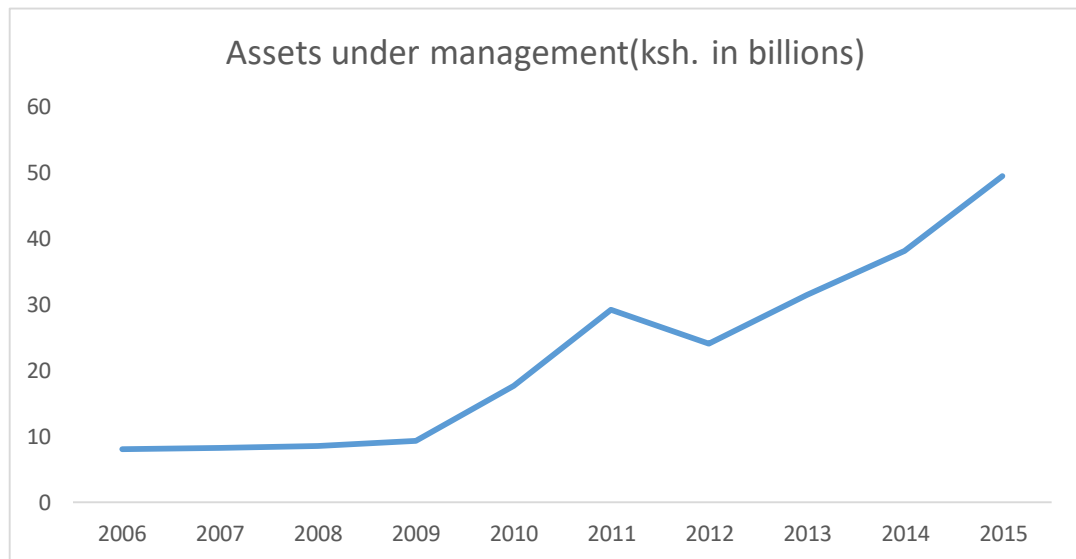


Figure 4.1: Comparison on Assets Under Management.

Figure 4.1 showed that the assets under management of mutual fund institutions has been growing steadily. The growth was very minimal during the period 2006 to 2009. This is probably due to the fact that mutual fund concept was new having been legalized in 2001. The period following 2009 saw the industry experiencing a tremendous growth rate. This can be attributed to more investors becoming aware of the existence of MFI's.

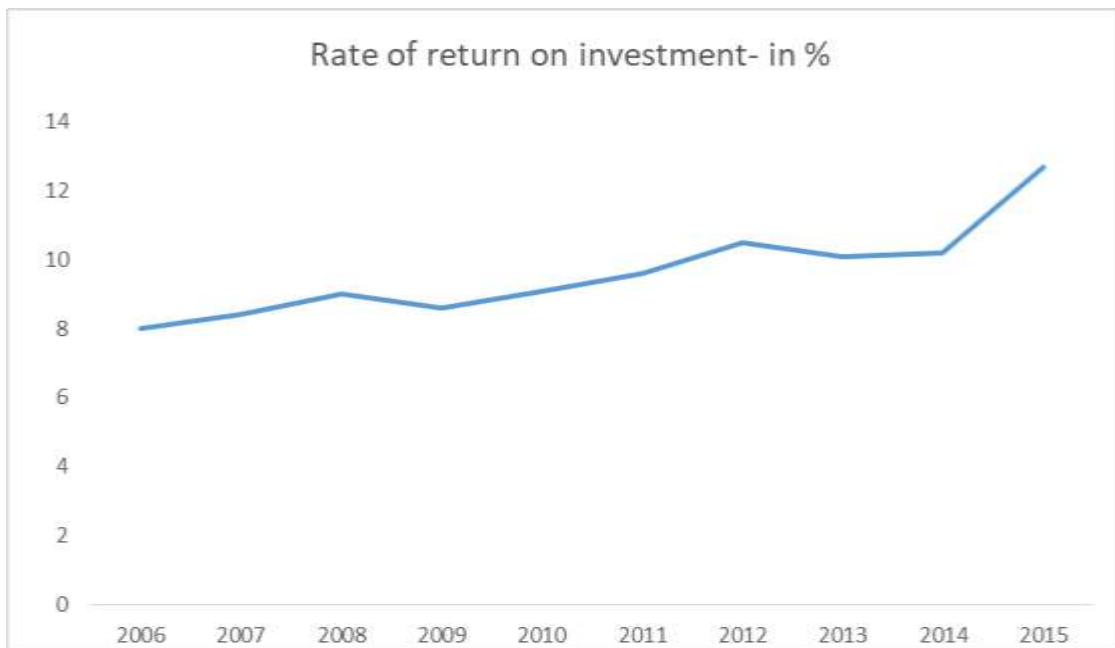


Figure 4.2: comparison of return on investments.

Returns on mutual fund investments has fluctuated over the period, though on average, they have an upward trend. The rates have been between 8% and 13%. The secondary data on rate of return over the period gave the same pattern as the primary data.

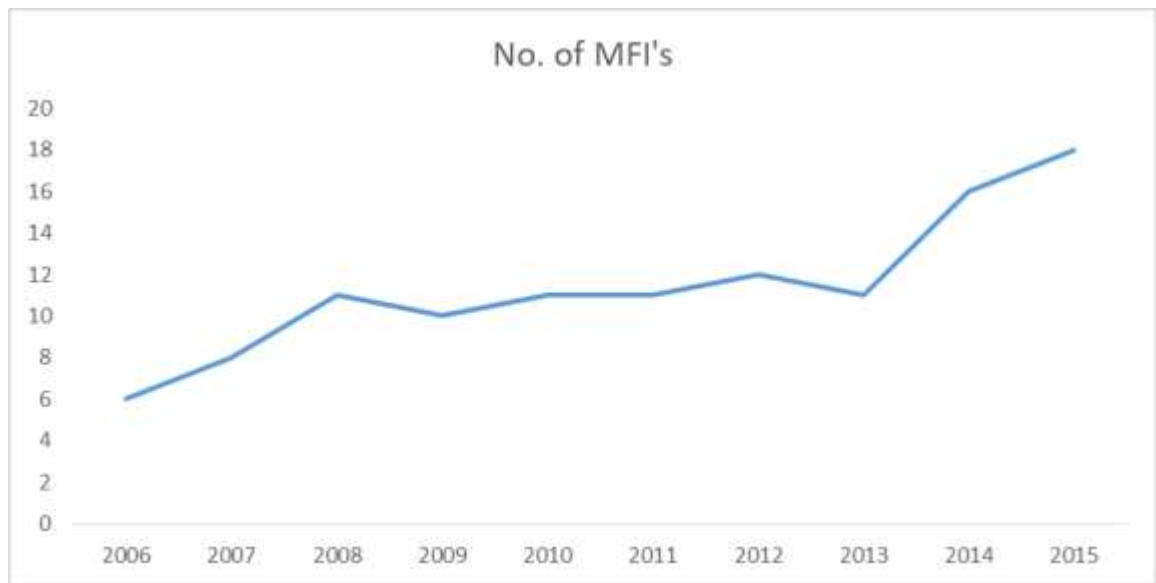


Figure 4.3: comparison of number of mutual fund institutions.

Figure 4.3 showed that the number of mutual funds have been increasing although at a very small percentage. The numbers grew steadily from 2006 to 2008 and then almost stagnated up to 2013. This may be attributed to more stringent regulatory measures implemented in 2010 (CMA 2010). The increase in number of mutual fund institutions does not show a big change, just like what was depicted by primary data analysed earlier.

4.5 Effect of Investors' perception on growth of mutual fund institutions in Kenya

To achieve this specific objective, the study sought to analyse how investor's perception affected the growth of mutual fund institutions in Kenya. This was operationalised by three sub-variables/ constructs; affordability, tax incentives and performance consistency. The effect was analyzed by using; descriptive results, factor analysis, cross tabulation and correlation analysis.

4.5.1 Descriptive Results of Investors' perception

Investors' perception was assessed by three measures namely affordability, Tax incentives and consistency of performance. Descriptive data shown on Table 4.7 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.7: Descriptive Statistics

Opinion statement	N	Minimum	Maximum	Mean	Std. Deviation
1. Investing in mutual fund products requires little amount	82	1	5	3.34	.854
2. The cost of investing in a mutual fund product is low	82	2	5	3.26	.750
3. Mutual fund products are readily available for those who wish to invest in them.	82	1	5	3.21	1.264
4. Mutual funds earnings are taxed at the lowest rate in Kenya.	82	2	5	3.49	1.125
5. The tax rules on mutual fund earnings are simple and clear to aid full compliance.	82	2	5	3.29	.909
6. Tax collection on mutual fund Earnings are conveniently done	82	2	5	3.32	.954
Valid N (listwise)	82				

Key: Ranked on a scale:1.0-1.7(strongly disagree); 1.8-2.5(disagree); 2.6-3.3(neutral); 3.4-4.1(agree); and 4.2-5.0(strongly agree)

Most of respondents posted a mean of between 3.09 and 3.30 which translates to being neutral to the opinion statements. Just a few of the respondents posted a mean of between 3.40 and 4.1 which implies that they agree with the opinion statement.

Tax incentives and Affordability both posted a mean of between 2.6 to 3.3. Indicating neutrality to the opinion statements with only mutual fund income being

tax at the lowest rate posting a mean of 3.49 meaning agreeing with the opinion statement. These findings agreed with Arathy *et al.* (2015) who established that the major factors influencing the investment decisions by retail investors are tax incentives, affordability and capital appreciation.

4.5.2 Factor Analysis Results of Investors' Perception

The study sought to determine the influence of Investors perception on the growth of mutual fund institutions in Kenya. Investor's perception had a total of six questions that were assessed for confirmatory validity for subsequent analysis. The result of the factor analysis in Table 4.8 showed all the six questions were found to have significant influence and were grouped into two critical factors that were driving investors' perception which cumulatively accounted for 84.723 percent of the total variance in this construct. The first component had 52.064% and the second had 32.659%. The two critical factors also had Eigenvalues of more than 1, i.e. first factor had an Eigenvalue of 3.124 and the second had 1.960.

Table 4.8: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.124	52.064	52.064	3.124	52.064	52.064	2.601	43.350	43.350
2	1.960	32.659	84.723	1.960	32.659	84.723	2.482	41.373	84.723
3	.530	8.839	93.561						
4	.317	5.288	98.849						
5	.051	.850	99.699						
6	.018	.301	100.000						

Extraction Method: Principal Component Analysis.

4.5.3 Rotated Component Matrix.

Results presented in Table 4.9 showed the components made for the Investors perception. The variable comprised of six (6) factors and all the six (6) variables were retained for subsequent analysis because they all met threshold values of 0.4 and above (David *et al.*, 2010; Rusuli *et al.*, 2013).

Table 4.9: Rotated Component Matrix^a

Opinion statement	Component	
	Tax incentives	Affordability
1. Investing in mutual fund products requires little amount		.978
2. The cost of investing in a mutual fund product is low		.762
3. Mutual fund products are readily available for those who wish to invest in them.		.940
4. Mutual funds earnings are taxed at the lowest rate in Kenya.	.908	
5. The tax rules on mutual fund earnings are simple and clear to aid full compliance.	.981	
6. Tax collection on mutual fund Earnings are conveniently done	.783	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

All the variables of growth had a factor loading of higher than 0.5 as shown in Table 4.9. Rusuli *et al.* (2013), showed that each individual variable must have value of 0.5 and above. The component values indicate that they are highly interrelated with each other.

Table 4.10: Descriptive results of Investors' perception

Measurement	Investors' perceptions	
	Tax incentives	Affordability
Mean	3.3659	3.2683
Cronbach' Alpha.	.871	.866

Key: Ranked on a scale; strongly disagree (1.0-1.7), disagree (1.8-2.5), indifferent/neutral (2.6-3.3), agree (3.4 - 4.1) and strongly agree (4.2-5.0).

Table 4.10 shows that the first component/dimension was named as growth of mutual fund institutions linked with tax incentives and the second component/dimension as growth of mutual fund institutions linked with affordability. Growth of mutual fund institutions linked with tax incentives posted a mean of 3.3659 implying that they agree with the opinion statements while growth of mutual fund institutions linked with assets under management posted a mean of 3.2683, implying that they were indifferent with opinion statements. The agree respondents' indications on growth of mutual fund institutions linked with Tax incentive on investment and affordability was consistent with the study by Mishra (2015) who established that Tax incentives attracts investors into mutual funds.

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali, 2016). The findings indicated that tax incentives measures had 0.871 while those of affordability had 0.866 as shown in Table 4.10. Investors' perception measures depicted Cronbach's alpha of above the suggested value of 0.7 hence the study was reliable.

4.5.4 Investors' perception and Growth Correlations Results

Pearson correlation analysis was conducted to examine the relationship between the variables and the results were as shown in Table 4.11.

Table 4.11: Correlations for investors perception and growth of mutual fund institutions

Variable		ROI	AUM	Tax Incentives	Affordability
ROI	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	82			
AUM	Pearson Correlation	.674**	1		
	Sig. (2-tailed)	.000			
	N	82	82		
Tax Incentives	Pearson Correlation	.204	.383**		
	Sig. (2-tailed)	.066	.000		
	N	82	82		
Affordability	Pearson Correlation	.130	.261*	.208	1
	Sig. (2-tailed)	.243	.018	.060	
	N	82	82	82	82

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Sekaran and Bougie, (2015) stated that correlation coefficient value (r) range from 0.10 to 0.29 is considered weak, from 0.30 to 0.49 is considered medium and from 0.50 to 1.0 is considered strong. However, according to Field (2013), correlation coefficient should not go beyond 0.8 to avoid multi-collinearity. Since the highest correlation coefficient is less than 0.8, as shown in Table 4.11, there is no multi-collinearity problem in this study.

Tax incentive had a weak, positive but insignificant correlation with return on investment and moderate, positive and significant correlation with Assets under management at 5% significant level. Affordability was found to be very weakly and negatively correlated to both return on investment and assets under management. Affordability was however insignificant to return on investment both at 5% and 1%

significance level but was significant to assets under management at 1% significance level. Based on this it is concluded that tax incentives has the greatest influence on growth while affordability only affects assets under management. These findings agreed with Arathy *et al.* (2015) who established that tax benefits, affordability and capital appreciation are strongly correlated to the investment decision by retail investors in general.

4.5.5 Investors' perception ANOVA Results

ANOVA test was done to test if any of the constructs of Investors' perceptions significantly influences the growth of mutual fund institutions. Table 4.12 showed ANOVA of investors' perception and growth of mutual fund institutions linked with ROI.

Table 4.12: ANOVA results of investors perception and growth of mutual fund institutions linked with ROI

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.464	2	2.732	3.104	.045 ^b
	Residual	69.535	79	.880		
	Total	74.999	81			

a. Dependent Variable: ROI

b. Predictors: (Constant), Affordability1, Tax Incentives

ANOVA results showed that the models of investors perception, Tax Incentives, and growth of mutual fund institutions linked with return on investment was significant (P-value = 0.045 and F-statistic= 3.104). This implied that the model was good for the tests and explained the variance in growth of mutual fund institutions linked with both return on investments in Kenya.

Table 4.13: ANOVA results of investors perception and growth of mutual fund institutions linked with AUM

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.833	2	10.416	14.495	.000 ^b
	Residual	56.773	79	.719		
	Total	77.606	81			

a. Dependent Variable: AUM

b. Predictors: (Constant), Affordability, Tax Incentives

ANOVA results showed that the model of investors perception, affordability, and growth of mutual fund institutions linked with assets under management was significant (p-value = 0.000 and F-statistic= 14.495). This implies that the model was good for the test and explained the variance in growth of mutual fund institutions linked with assets under management in Kenya.

4.5.6 Model summary for investors' perception and growth of mutual fund institutions.

The combined correlation between the independent variable constructs, affordability and Tax incentives and growth of mutual fund institutions linked with return on investments was as per Table 4.14.

Table 4.14: Model summary for investors perception and growth of mutual fund institutions linked with return on investments

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.270 ^a	.073	.049	.93818

a. Predictors: (Constant), Affordability, Tax Incentives

Table 4.14 showed that the coefficient R was .270 indicating that the combined correlation between the independent variable constructs (Affordability and Tax incentives) and growth of mutual fund institutions linked with return on investments.

The table also showed that the combined constructs explains just 7.3% influence growth of mutual fund institutions linked with return on investments. The remaining 92.7% of change was due to other factors not captured in the model. The results further suggest that this model is not good enough to explain the growth of mutual fund institutions because the constructs only explain 7.3% of growth of mutual fund institutions linked with return on investments. The model equations; growth of mutual fund institutions linked with return on investment = $\beta_0 + \beta_1$ Tax Incentives + β_2 Affordability explain only 7.3% and hence explained 7.3 percent of the variation in growth of mutual fund institutions linked with return on investments (R square =0.073).

Table 4.15: Model summary for investors perception and growth of mutual fund institutions linked with assets under management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.518 ^a	.268	.250	.84773

a. Predictors: (Constant), Affordability, Tax Incentives

Table 4.15 showed that the coefficient R was .518 indicating that the combined correlation between the independent variable constructs (Affordability and Tax incentives) and growth of mutual fund institutions linked with assets under management. The tables also showed that the combined constructs explains 26.8% of growth of mutual fund institutions linked to assets under management. The remaining 73.2% change was attributed to other factors not captured in the model. The results further suggested that the model was good to improve the growth of mutual fund institutions linked with assets under management because they affected 26.8%. The model equations; growth of mutual fund institutions linked with assets under management = $\beta_0 + \beta_1$ Tax Incentives + β_2 Affordability and explained 26.8% growth of mutual fund institutions as measured by the goodness of fit and hence explained 26.8 percent of the variation in growth of mutual fund institutions linked with assets under management (R square = 0.268).

4.5.7 Coefficients Regression Results for investors perception and growth of mutual fund institutions.

The general objective of the study was to determine the influence of investors' perception on growth of mutual fund institutions. The Multiple Linear Regression model was used to assess the overall effect of independent variables on dependent variable. The Ordinary Least Squares was used to determine the estimates of the coefficients. One of the problems that may violate the assumptions of Ordinary Least Square regression is multi-collinearity. Multi-collinearity was therefore examined by computing tolerance and the variance inflation factor. According to Tabachnick and Fidell (2019) a small tolerance value indicated that the variable under study was almost a perfect linear combination of the independent variables in the equation and therefore the variable should not be included in the regression equation. Tolerance is the proportion of a variable's variance that is not accounted for by the other independent variables in the equation (Garson, 2012). Tolerance was measured by calculating the variance-inflation factor. The rule of thumb is that a VIF should be less than 5 for the absence of a serious multi-collinearity problem with a tolerance of above 0.2. Therefore, all the regression model was subjected to statistical collinearity tests which determined that the study variables had a high tolerance level and were free from multi-collinearity since none of the Variance Inflation Factor (VIF) for all study variables were above 5.

Table 4.16: Coefficients Regression Results for investors perception and growth of mutual fund institutions linked with return on investment

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.446	.515		6.691	.000		
Tax Incentives	.261	.120	.242	2.181	.032	.957	1.045
Affordability	-.200	.122	-.181	-1.632	.107	.957	1.045

a. Dependent Variable: ROI

Table 4.16 indicated that Tax incentives had a statistically significant influence on growth of mutual fund institutions linked to return on investments while affordability does not have a statistically significant influence on return on investments. The model reports that a 0.261 point increase in tax incentives led to a 1 point increase in growth of mutual fund institutions linked with return on investments.

The regression model is summarized as shown below:

$$Y = 3.446 + 0.261X_1$$

Where, X_1 – Tax incentives.

Table 4.17: Coefficients Regression Results for investors perception and growth of mutual fund institutions linked with assets under management

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.127	.465		6.721	.000		
Tax Incentives	.502	.108	.457	4.649	.000	.957	1.045
Affordability	-.400	.110	-.357	-3.625	.001	.957	1.045

a. Dependent Variable: AUM

Regression analysis was conducted to empirically determine whether Investors' Perception measures namely; Tax incentives and Affordability had significant influence on the growth of Mutual fund institutions linked with assets under management in Kenya.

Table 4.17 indicates that both Tax incentives and affordability have statistically significant influence on growth of mutual fund institutions linked with assets under management. The model further reported that a 0.502 point increase in tax incentives led to a 1 point increase in growth of mutual fund institutions linked with assets under management and a -0.400 change in affordability leads to a one point

increase in growth of mutual fund institution linked with asset under management. This implies that a reduction of price of securities sold by mutual funds makes the securities more attractive.

The regression model is summarized as shown below:

$$Y = 3.127 + 0.502X_1 + -0.400X_2$$

Where, X_1 - Tax incentives and X_2 – Affordability

4.5.8 Discussion of the Findings

The first research question was to determine the influence of investors' perception on the growth of mutual fund institutions in Kenya. Investors' perception referred to as a conscious or unconscious state of awareness or understanding of one's surroundings that exists within the mind and formed through sensory signals stimulated by current conditions, expectations and past memories. Investors' perception was assessed by two operational variables namely; Affordability and tax incentives while the growth of mutual fund institutions was assessed through return on investments and assets under management. The results indicated that investors' perception had a weak but positive combined correlation with growth of mutual fund institutions linked with return on investments and a moderate combined correlation with growth of mutual fund institutions linked with assets under management. Investors' perception constructs only explained a mere 7.4% changes in growth of mutual fund institutions linked with return on investments while they explained 27.1% of growth of mutual fund institutions linked with assets under management. Investors' Perception was measured through affordability and tax incentives. The study revealed that affordability and tax incentives significantly affect the growth of mutual fund institutions linked with assets under management but had no significant influence on growth of mutual fund institutions linked with return on investments. These findings partly agreed with Jagongo and Mutswenje (2014), Kimeu *et al.* (2016) and Mareri (2017) who established investors' perception as one of the factors influencing the investor's investment decisions.

Cross tabulation showed that 50% of the respondent agreed, 41.5% neutral and 8.5% disagreed with the assertion that Investors perception significantly affect the growth of mutual fund institutions in Kenya. The results showed that 20% of the respondents agreed that affordability strongly affect the growth of mutual fund institutions. A further thirty eight percent of the respondents agreed that affordability moderately affect investors in mutual fund products while twenty five percent strongly believed that affordability does not in any way influence the growth of Mutual fund institutions. This percentage revealed that some respondent could not perceive a direct relationship between investors' perception and growth of mutual fund institutions. Thirty six percent of the respondents agreed that tax incentives was an important factor in attracting investors into mutual fund products. Only six percent of the respondents strongly disagreed with the above notion while thirty seven percent of the respondents remained neutral. Sixty three percent of the respondents agreed that tax incentives moderately influence mutual fund investment.

4.5. Financial Market Liquidity and Growth of Mutual Fund Institutions

The second objective of the study was to determine the influence of financial market liquidity on the growth of mutual fund institutions in Kenya. This objective was operationalized by four sub-variables/ constructs i.e. market immediacy, market depth, market breadth and market resilience.

4.5.1 Descriptive Results of Financial Market Liquidity.

Financial market liquidity was assessed by four measures namely market immediacy, market depth, market breadth and market resilience. Descriptive data shown in Table 4.18 presented the results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.18: Financial market liquidity Descriptive Statistics

Opinion statement	N	Minimum	Maximum	Mean	Std. Deviation
1 The process of effecting a transaction is short.	82	1	5	3.04	1.290
2 The number of transactions per day are relatively small	82	1	5	2.95	1.323
3 The transfer process has been fully Automated	82	1	5	2.94	1.190
4 Many people have joined mutual fund Investments	82	1	5	3.76	1.233
5 No individual buyer can influence the price of a mutual fund Product.	82	2	5	3.68	.954
6 No individual seller can influence the price of a mutual fund product	82	1	5	3.59	1.448
7 The orders placed on mutual fund products are enough to negate price effect.	82	2	5	3.40	.954
8 The size of the orders are big enough to stabilize the prices.	82	2	5	3.50	1.210
9 The price of mutual fund products are relatively stable.	82	2	5	3.67	.861
10 The flow of orders on mutual fund products are unpredictable.	82	1	5	3.27	1.248
11 Market imbalances on orders are quickly self-adjusted.	82	2	5	3.35	1.261

Key: Ranked on a scale: 1.0-1.7(strongly disagree); 1.8-2.5(disagree); 2.6-3.3(neutral); 3.4-4.1(agree); and 4.2-5.0(strongly agree)

The respondents were split on almost equal halves between neutrality, a mean of between 2.6 and 3.3 and agree posting a mean of 3.4 and 4.1 which implied that they agreed with the opinion statement. Table 4.18 showed that the Kenyan financial market is fairly liquid probably due to effective roles played by the various regulatory bodies and this supported growth of mutual fund institutions.

4.5.2 Factor Analysis Results of Financial market Liquidity

The study sought to determine the influence of Financial Market liquidity on the growth of mutual fund institutions in Kenya. Financial market Liquidity had a total of thirteen questions that were assessed for confirmatory validity for subsequent analysis.

Table 4.19: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.751	47.507	47.507	4.751	47.507	47.507	4.713	47.132	47.132
2	2.407	24.071	71.579	2.407	24.071	71.579	2.445	24.447	71.579
3	.887	8.870	80.448						
4	.836	8.356	88.804						
5	.470	4.704	93.508						
6	.344	3.440	96.948						
7	.200	1.996	98.945						
8	.066	.660	99.605						
9	.032	.321	99.926						
10	.007	.074	100.000						

Extraction Method: Principal Component Analysis.

The result of the factor analysis in table 4.19 showed that there were two critical factors that were driving Financial Market Liquidity which cumulatively accounted for 71.579% of the total variance in this construct. The first factor had a variance of 47.507% and the second had 24.071%. Each of three critical factors had Eigen value of more than 1, i.e. first factor had an Eigenvalue of 4.751 and the second had 2.5407

4.5.3 Rotated Component Matrix.

Results presented in Table 4.20 showed the components made for the financial market liquidity. The variable comprised of eleven (11) factors and only nine (09) variables were retained for subsequent analysis because they all met threshold values of 0.4 and above (David *et al.*, 2010).

Table 4.20: Rotated Component Matrix^a

Opinion statements	Component	
	Market resilience	Market breadth
1 The process of effecting a transaction is short.	.803	
2 The number of transactions per day are relatively small	.934	
3 Many people have joined mutual fund investments	.660	
4 No individual buyer can influence the price of a mutual fund		.813
Product.		
5 The flow of orders on mutual fund products are unpredictable.	.881	
6 Market imbalances on orders quickly self-adjust.	.716	
7 The orders placed on mutual fund products are big enough to		.832
neutralise the maneuvers of individual players.		
8 The size of the orders are big enough to stabilize the prices.		.836
9 The price of mutual fund products are relatively stable.		.917

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Table 4.20 also showed the rotated component factor loadings for determinants of financial market liquidity measures. These are Market resilience and market breadth. The other construct identified earlier have been absorbed by these two. Most of the opinion statements were found to be within the resilience construct. This is now a combination of what was earlier market depth, market immediacy and market resilience.

Table 4.21: Descriptive results of financial market liquidity

Measurement	Financial Market Liquidity	
	Market Resilience	Market Breadth
Mean	3.7561	3.6561
Cronbach alpha	.903	.807

Key: Ranked on a scale; strongly disagree (1.0-1.7), disagree (1.8-2.5), indifferent/neutral (2.6-3.3), agree (3.4 - 4.1) and strongly agree (4.2-5.0).

Table 4.21 showed that the first component/dimension was named as growth of mutual fund institutions linked with market resilience and the second component/dimension as growth of mutual fund institutions linked with market breadth. Growth of mutual fund institutions linked with market resilience posted a mean of 3.7561 implying that they agreed with the opinion statements while growth of mutual fund institutions linked with assets market breadth posted a mean of 3.6561 implying that they agreed with the opinion statements. The agree respondents' indications on growth of mutual fund institutions linked with market resilience and market breadth was consistent with Harish *et al.* (2014), who established that financially liquid market enables faster disposal of any financial instruments with zero or minimum loss in value and Wanyama (2017) who contest that financial market liquidity is necessary for growth of corporate bonds market.

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali, 2016). The findings indicated that market resilience measures had 0.903 while those of market breadth had 0.807 as shown in Table 4.21. Financial market liquidity measures depicted Cronbach's alpha of above the suggested value of 0.7 hence the study was reliable.

4.5.4 Financial market Liquidity and Growth Correlations Results

Pearson correlation analysis was conducted to examine the relationship between the variables. The outcome was as shown in Table 4.22.

Table 4.22: Correlation matrix of Financial market liquidity and growth of mutual fund institutions

Variable		ROI	AUM	Market breadth	Market resilience
ROI	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	82			
AUM	Pearson Correlation	.702**	1		
	Sig. (2-tailed)	.000			
	N	82	82		
Market breadth	Pearson Correlation	-.050	.098	1	
	Sig. (2-tailed)	.657	.380		
	N	82	82	82	
Market resilience	Pearson Correlation	.081	.049	.180	1
	Sig. (2-tailed)	.470	.661	.106	
	N	82	82	82	82

** . Correlation is significant at the 0.01 level (2-tailed).

According to Sekaran and Bougie, (2015), the correlation coefficient value (r) range from 0.10 to 0.29 is considered weak, from 0.30 to 0.49 is considered medium and from 0.50 to 1.0 is considered strong. However, according to Field (2013), correlation coefficient should not go beyond 0.8 to avoid multi-collinearity. Since the highest correlation coefficient is less than 0.8, as shown in Table 4.22, there is no multi-collinearity problem in this study. The table 4.22 also showed that there is a

very weak negative insignificant correlation between Market breadth and return on investments. This relationship is insignificant. The table also showed a weak but positive insignificant correlation between Market breadth and assets under management. Market resilience found to have a very weak positive and insignificant correlation with both return on investments and assets under management at 0.05 level of significance.

4.5.5 Financial Market Liquidity ANOVA Results

The ANOVA test was done to test if any of the constructs of financial market liquidity significantly influences the growth of mutual fund institutions. Table 4.23 showed the results of financial market liquidity and growth of mutual fund institutions linked with ROI.

Table 4.23: ANOVA results of financial liquidity and growth of mutual fund institutions linked with return on investment

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.273	2	.137	.144	.866 ^b
	Residual	74.725	79	.946		
	Total	74.999	81			

a. Dependent Variable: ROI

b. Predictors: (Constant), Market resilience, Market breadth

The ANOVA results showed that none of the financial market liquidity constructs had statistically significant influence on growth of mutual fund institutions linked with assets under management (p-value 0.866 and F statistics of 0.144). This implied that all the financial market liquidity constructs do not explain the variance in growth of mutual fund institutions linked with return on investments in Kenya.

Table 4.24: ANOVA results of financial liquidity and growth of mutual fund institutions linked with assets under management

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.264	2	1.132	1.187	.311 ^b
Residual	75.342	79	.954		
Total	77.606	81			

a. Dependent Variable: AUM

b. Predictors: (Constant), Market resilience, Market breadth

The ANOVA results indicated that none of the financial market liquidity constructs significantly influence growth of mutual fund institutions linked with AUM (p-value 0.311 and F statistics of 1.187). This implies that all the financial market liquidity constructs do not explain the variance in growth of mutual fund institutions linked with assets under management in Kenya.

4.5.6 Model summary for financial market liquidity and growth of mutual fund institutions

Table 4.25: Model summary for financial market liquidity and growth of mutual fund institutions linked with return on investment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.060 ^a	.004	-.022	.97257

a. Predictors: (Constant), Market resilience, Market breadth

Table 4.25 showed the combined correlation between financial market liquidity constructs and dependent variables (return on investments) is very weak (.060). This result translates into a very weak coefficient of determination (0.4%). This implies that the explanatory power of this model is negligible, that is, the independent variable accounts for a mere 0.4% of the changes in return on investments. The

remaining 99.6% of changes was identified by other factors not captured in the model. The results further suggest that financial market liquidity does not significantly influence growth of mutual fund institutions linked with ROI. The model equations; growth of mutual fund institutions linked with return on investment = $\beta_0 + \beta_1$ Market breadth + β_2 Market resilience. This equation only explains 0.4% of the variation in growth of mutual fund institutions.

Table 4.26: Model summary for Financial Market Liquidity and Growth of Mutual Fund Institutions linked with Assets under Management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.171 ^a	.029	.005	.97657

a. Predictors: (Constant), Market resilience, Market breadth

Table 4.26 indicated that the combined correlation between financial market liquidity constructs and dependent variables (assets under management) is very weak (.171). This results translates into a very weak coefficient of determination (2.9%). This implies that the explanatory power of this model is very low, that is, the independent variable accounts for a mere 2.9% of the changes in assets under management. The remaining 97.4% of changes was identified by other factors not captured in the model. The results further suggest that financial market liquidity does not significantly influence growth of mutual fund institutions linked with assets under management. The model equations; growth of mutual fund institutions linked with return on investment = $\beta_0 + \beta_1$ Market breadth + β_2 Market resilience. This equation only explains 2.9% of the variation in growth of mutual fund institutions

4.5.7 Regression Results of Financial Market Liquidity and Growth of Mutual Fund Institutions in Kenya.

The general objective of the study was to determine the influence of financial market liquidity on growth of mutual fund institutions. The Multiple Linear Regression model was used to assess the overall effect of independent variables on dependent variable. The Ordinary Least Squares was used to determine the estimates of the

coefficients. One of the problems that may violate the assumptions of Ordinary Least Square regression is multi-collinearity. Multi-collinearity was therefore examined by computing tolerance and the variance inflation factor. According to Hair *et al.*, (2010) a small tolerance value indicated that the variable under study was almost a perfect linear combination of the independent variables in the equation and therefore the variable should not be included in the regression equation. Tolerance is the proportion of a variable's variance that is not accounted for by the other independent variables in the equation (Garson 2012). Tolerance may be measured by calculating the variance-inflation factor. The rule of thumb is that a VIF should be less than 5 for the absence of a serious multi-collinearity problem. Therefore, all the study variables were subjected to statistical multi-collinearity tests which determined that the study variables had a high tolerance level and were free from multi-collinearity since none of the Variance Inflation Factor (VIF) for all the study variables had a VIF above 5. (Panda & Leepsa, 2017).

Table 4.27: Regression Results of Financial Market Liquidity and Growth of Mutual Fund Institutions linked with Return on Investments

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.946	.553		5.331	.000		
Market Resilience	.282	.107	.285	2.645	.010	.997	1.003
Market breadth	-.072	.119	-.065	-.605	.547	.997	1.003

a. Dependent Variable: ROI

The analysis in Table 4.27 presented results on multiple linear regression model. All the constructs namely: Market breadth and Market resilience. Market resilience had a statistically significant influence on growth of mutual fund institutions linked to return on investments while market breadth did not have a statistically significant

influence on return on investments. The model reported that a 0.282 point increase in market resilience led to a 1 point increase in growth of mutual fund institutions linked with return on investments.

The regression model is summarized as shown below:

$$Y = 2.946 + 0.284X_1$$

Where, X_1 – Market resilience.

Table 4.28: Regression Results of Financial Market Liquidity and Growth of Mutual Fund Institutions linked with Assets under Management

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.442	.572		4.273	.000		
Market resilience	.209	.110	.207	1.889	.062	.997	1.003
Market breadth	.097	.123	.087	.794	.430	.997	1.003

a. Dependent Variable: AUM

Table 4.28 displays the regression coefficients results of the financial market liquidity constructs namely; Market breadth and market resilience linked with assets under management. All the two constructs have no statistical significant influence on growth of assets under management. This implied that the null hypothesis is accepted and the alternative hypothesis is rejected i.e. H_{0A} is rejected since $\beta \neq 0$ and p-value > 0.05.

4.5.8 Discussion of the results.

The second research question was to determine the influence of financial market liquidity on the growth of mutual fund institutions in Kenya. Financial Market liquidity refers to the ease of acquiring and disposing off an investment asset quickly and with minimum loss in value. Financial market liquidity was assessed by three operational variables namely; market immediacy, market breadth and market resilience which were later reduced to market breadth and market resilience through factor analysis, while the growth of mutual fund institutions was assessed through return on investments and assets under management. The results indicated that financial market liquidity had a moderate positive combined correlation with growth of mutual fund institutions linked with return on investments and a weak but positive combined correlation with growth of mutual fund institutions linked with assets under management. Financial market liquidity constructs only explained 19.5% changes in growth of mutual fund institutions linked with return on investments while they explained a meagre 5.5% of growth of mutual fund institutions linked with assets under management.

The study concluded that financial market breadth has a significant influence on the growth of mutual fund institutions linked with both return on investments and assets under management while market resilience only had significant influence on growth of mutual fund institutions linked with assets under management. These findings were in disagreement with Omar (2014) who established that sound financial management and financial market liquidity are crucial for the mobilization of funds through financial instruments like bonds, unit trust and equity as well as Harish *et al.*, (2014), pointed out that financially liquid market enables faster disposal of any financial instruments with zero or minimum loss in value.

Cross tabulation showed that fifty one percent of the respondents agreed that financial market liquidity affect the growth of mutual fund institutions .Forty percent were neutral on influence of financial market liquidity on growth of mutual fund institutions while 8.5 percent disagreed with the opinion statement that financial

market liquidity influence the growth of mutual fund institutions. The bigger proportion of the respondent agreed that financial market liquidity influences the growth of mutual fund institutions. This is in agreement with the widely held assertion that the presence of a liquid financial market is necessary for the investors to invest in that market as this will definitely boost their investment appetite. The respondents agreed that since investment portfolio held by an investor at any given time keeps on changing, it is necessary to create an environment in which these portfolio changes are easily implemented.

4.6 Portfolio Diversification and Growth of Mutual Fund Institutions

The third objective of the study was to determine the influence of Portfolio Diversification on the growth of mutual fund institutions in Kenya. This objective was operationalized by three sub-variables/ constructs namely; Number of products, Investors' risk awareness and Behaviour of returns. Measurements were on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree). Most of the respondents posted a neutral response to the opinion statement with a mean falling between 2.6 and 3.3. Two opinion statements posted a mean between 3.4 and 4.1. This implies that on average, the respondents agreed with the opinion statements. Table 4.29 presented the descriptive summary of the components of various sub-variables. Most of respondents posted a mean of between 3.09 and 3.30 which translates to being neutral to the opinion statements. Just a few of the respondents posted a mean of between 3.40 and 4.1 which implies that they agreed with the opinion statement.

4.6.1 Descriptive Results of Portfolio Diversification

Table 4.29: Descriptive Statistics

Opinion statement	N	Minimum	Maximum	Mean	Std. Deviation
1 Different mutual fund products respond differently to different economic factors.	82	1	5	2.83	1.481
2 Mutual fund managers have completely diversified each investors' portfolio.	82	1	5	3.16	1.470
3 Risk associated with different mutual fund products are carefully evaluated and managed properly.	82	1	5	3.23	1.308
4 Different mutual fund products have different rates of returns.	82	1	5	3.41	1.405
5 Mutual fund products rates of return are affected by different economic factors.	82	1	5	3.12	1.290
6 The rates of returns are commensurate to risk levels.	82	1	5	3.27	.930
7 Investors in mutual funds are risk takers	82	1	5	3.26	1.028
8 Investors in mutual fund products are risk averters	82	1	5	3.59	1.206
9 Investors in Mutual fund products are risk neutral	82	2	5	3.59	.769

Key: Ranked on a scale: 1.0-1.7(strongly disagree); 1.8-2.5(disagree); 2.6-3.3(neutral); 3.4-4.1(agree); and 4.2-5.0(strongly agree)

4.6.2 Factor Analysis Results of Portfolio Diversification

The study sought to determine the influence of portfolio diversification on the growth of mutual fund institutions in Kenya. Portfolio diversification had a total of nine opinion statements that were assessed for confirmatory validity and eight

opinion statements were retained for subsequent analysis. The result of the factor analysis in Table 4.30 showed that there were two critical factors that were driving portfolio diversification. These factors cumulatively accounted for 71.698% of the total variance. The first factor had a variance of 54.27% and the second had a variance of 17.428%. Each of the three critical factors had Eigen value of more than 1.

Table 4.30: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total Variance	% of Variance	Cumulative %	Total Variance	% of Variance	Cumulative %	Total Variance	% of Variance	Cumulative %
1	4.342	54.270	54.270	4.342	54.270	54.270	4.238	52.973	52.973
2	1.394	17.428	71.698	1.394	17.428	71.698	1.498	18.726	71.698
3	.989	12.361	84.060						
4	.616	7.705	91.765						
5	.290	3.626	95.391						
6	.211	2.640	98.031						
7	.117	1.456	99.488						
8	.041	.512	100.000						

Extraction Method: Principal Component Analysis.

4.6.3 Rotated Component Matrix.

Results presented in Table 4.31 showed the components of the portfolio diversification. The variable comprised of nine (9) factors and eight (8) variables were retained for subsequent analysis because they all met threshold values of 0.4 and above (David *et al.*, 2010).

Table 4.31: Rotated Component Matrix for Portfolio Diversification

Opinion statements	Component	
	Risk awareness	Behaviour of returns
1 Different mutual fund products respond differently to different economic factors.	.889	
2 Mutual fund managers have completely diversified each investors' portfolio.	.891	
3 Risk associated with different mutual fund products are carefully evaluated and managed properly.	.858	
4 Investors in mutual funds are risk takers	.611	
5 Investors in mutual fund products are risk averters	.883	
6 Investors in Mutual fund products are risk neutral	.833	
7 Different mutual fund products have different rates of returns.		.848
8 The rates of returns are commensurate to risk levels		.738

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Table 4.31 also showed the rotated component factor loadings for determinants of portfolio diversification measures. These are risk awareness and behaviour of returns. The other construct identified earlier have been absorbed by these two. Most of the opinion statements were found to be within the risk awareness constructs.

Table 4.32: Descriptive results of Portfolio Diversification

Measurement	Portfolio diversification	
	Behaviour of returns	Risk Levels
Mean	3.2515	3.3872
Cronbach alpha	.828	.907

Key: Ranked on a scale; strongly disagree (1.0-1.7), disagree (1.8-2.5), indifferent/neutral (2.6-3.3), agree (3.4 - 4.1) and strongly agree (4.2-5.0).

Table 4.32, the first component/dimension was named as growth of mutual fund institutions linked with increase in number of products, the second component/dimension as growth of mutual fund institutions linked with behaviour of returns and

the third component/dimension was named as growth of mutual fund institutions linked with risk awareness. Respondents posted a neutral results on growth of mutual fund institutions linked with increase in number of products with a mean of 3.0732 and cronbach alpha of 0.953 which was far beyond the minimum threshold of 0.7. The second component/dimension was named as growth of mutual fund institutions linked with behaviour of returns. It had a mean of 3.3415 and cronbach alpha value of 0.812. The third was growth of mutual fund institutions linked with risk awareness. It had a mean of 3.3872 and Cronbach alpha of 0.831. These results indicated that the majority of the respondents were not sure on the influence of portfolio diversification on growth of mutual fund institutions while a few respondents agreed that growth of mutual fund institutions is affected by portfolio diversification.

4.6.4 Portfolio Diversification and Growth Correlations Results

Table 4.33: Correlation matrix of product diversification and growth of mutual fund institutions

Variable		ROI	AUM	BOR	Risk awareness
ROI	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	82			
AUM	Pearson Correlation	.674**	1		
	Sig. (2-tailed)	.000			
	N	82	82		
BOR	Pearson Correlation	.018	.221*	1	
	Sig. (2-tailed)	.874	.046		
	N	82	82	82	
Risk	Pearson Correlation	.051	.502**	.281*	1
	Sig. (2-tailed)	.647	.000	.010	
	N	82	82	82	82

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Pearson correlation analysis was used to examine the strength and determine the nature of relationship between the variables. Sekaran and Bougie, (2015) stated that the correlation coefficient value (r) range from 0.10 to 0.29 is considered weak, from 0.30 to 0.49 is considered medium and from 0.50 to 1.0 is considered strong. However, according to Field (2013), correlation coefficient should not go beyond 0.8 among independent variables to avoid multi-collinearity. Since the highest correlation coefficient is 0.502 which is less than 0.8, there is no multi-collinearity problem in this study.

Table 4.33 showed that there is a very weak correlation between behaviour of returns and return on investments. This relationship is insignificant. The table also showed a weak but significant correlation between behaviour of returns and return on investments at 0.01 level of significance. Risk awareness was found to have a very weak positive and insignificant correlation with ROI but a strong positive and significant correlation with assets under management at 0.05 level of significance. This is supported by Bunyasi *et al.*, (2014) where they showed that portfolio diversification has a positive and significant correlation with the growth of mutual fund institutions.

4.6.5 Products Diversification ANOVA Results

The ANOVA test was done to test if any of the constructs of product diversification significantly influences the growth of mutual fund institutions. Table 4.34 showed portfolio diversification and growth of mutual fund institutions linked with ROI results.

Table 4.34: ANOVA results of products diversification and growth of mutual fund institutions linked with return on investment

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.199	2	.099	.105	.901 ^b
Residual	74.800	79	.947		
Total	74.999	81			

a. Dependent Variable: ROI

b. Predictors: (Constant), Risk awareness, BOR

The ANOVA results indicated that none of the portfolio diversification constructs significantly influence growth of mutual fund institutions linked with ROI (p-value 0.901 and F statistics of 0.105)..

Table 4.35: ANOVA results of products diversification and growth of mutual fund institutions linked with assets under management

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	20.088	2	10.044	13.795	.000 ^b
Residual	57.518	79	.728		
Total	77.606	81			

a. Dependent Variable: AUM

b. Predictors: (Constant), Risk awareness, BOR

The ANOVA results showed that at least one of the portfolio diversification constructs significantly influence growth of mutual fund institutions linked with AUM (p-value 0.000 and F statistics of 13.795) as shown in Table 4.35. This implies that at least one of the portfolio diversification constructs explains the variance in growth of mutual fund institutions linked with assets under management in Kenya.

4.6.6 Model summary for products diversification and growth of mutual fund institutions.

Table 4.36: Model summary for products diversification and growth of mutual fund institutions linked with return on investment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.051 ^a	.003	-.023	.97305

a. Predictors: (Constant), Risk awareness, BOR

Table 4.36 showed that the combined correlation between portfolio diversification constructs and dependent variables (return on investments) is very weak (.051). This results translates into a very low coefficient of determination (0.03%). This implied that the explanatory power of this model is negligible, that is, the independent variable accounts for only 0.3% of the changes in return on investments. The remaining 99.97% of changes was identified by other factors not captured in the model. The results further suggest that portfolio diversification does not significantly influence growth of mutual fund institutions linked with ROI.

The model equations; growth of mutual fund institutions linked with return on investment = $\beta_0 + \beta_1$ Risk awareness + β_2 behaviour of returns. This equation only explains 0.03% of the variation in growth of mutual fund institutions.

Table 4.37: Model summary for products diversification and growth of mutual fund institutions linked with assets under management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.509 ^a	.259	.240	.85327

a. Predictors: (Constant), Risk awareness, Behaviour of returns

Table 4.37 showed that the combined correlation between portfolio diversification constructs and dependent variables (assets under management) is strong (.509). This results translates into a modest coefficient of determination (25.9%). This implied that the explanatory power of this model is moderate, that is, the independent variable accounts for 25.9% of the changes in assets under management. The remaining 74.1% of changes was identified by other factors not captured in the model. The results further suggest that portfolio diversification does significantly influence growth of mutual fund institutions linked with assets under management. The model equations; growth of mutual fund institutions linked with assets under management = $\beta_0 + \beta_1$ Risk awareness + β_2 behaviour of returns. This equation explains 25.9 of the variation in growth of mutual fund institutions linked with assets under management.

4.6.7 Regression Results of Products diversification and Growth of mutual fund institutions in Kenya

The Multiple Linear Regression model was used to assess the overall effect of independent variables on dependent variable. Table 4.38 showed results.

Table 4.38: Coefficients Regression Results for products diversification and growth of mutual fund institutions linked with return on investments

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.495	.467		7.482	.000		
Behaviour of returns	.004	.113	.004	.031	.975	.921	1.086
Risk awareness	.051	.118	.050	.430	.669	.921	1.086

a. Dependent Variable: ROI

The Ordinary Least Squares was used to determine the estimates of the coefficients. One of the problems that may violate the assumptions of Ordinary Least Square regression is multi-collinearity. Multi-collinearity was examined by computing tolerance and the variance inflation factor. According to Tabachnick and Fidell (2019) a small tolerance value indicated that the variable under study was almost a perfect linear combination of the independent variables in the equation and therefore the variable should not be included in the regression equation. Tolerance is the proportion of a variable's variance that is not accounted for by the other independent variables in the equation (Ibe, et. al. 2015). Tolerance was measured by calculating the variance-inflation factor. The rule of thumb is that a VIF should be less than 5 for the absence of a serious multi-collinearity problem.

The regression model was subjected to statistical collinearity tests which determined that the study variables had a high tolerance level and were free from multi-collinearity since all the Variance Inflation Factor (VIF) for all the study variable were below 5 as shown in Table 3.38. The Table also showed that both behaviour of returns and risk awareness do not have statistically significant influence the growth of mutual fund institutions linked with return on investments.

Table 4.39: Coefficients Regression Results for products diversification and growth of mutual fund institutions linked with assets under management

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
(Constant)	1.645	.410		4.016	.000		
BOR	.085	.099	.086	.854	.395	.921	1.086
Risk awareness	.489	.103	.478	4.733	.000	.921	1.086

a. Dependent Variable: AUM

Table 4.39 displayed the regression coefficients results of the portfolio diversification measures namely; Risk awareness and behaviour of returns and growth of mutual fund institutions linked with assets under management. Behaviour of returns was found to have statistically insignificant influence on growth of mutual fund institutions linked with assets under management while risk levels had statistically significant influence at 0.05 level of significance. The estimator is

$$Y_i = 1.645 + 0.489 X_1$$

Where X_1 = Risk awareness.

This findings is in agreement with Kamau and McCormick (2016) who established that success of food processing firms in Kenya is affected by the level of product diversification but contradicts Berge *et al.*, (2010) who found that both product and geographical diversifications are associated with reduced profits and higher costs.

4.6.8 Discussion of the Results

The third research question was to determine the influence of portfolio diversification on the growth of mutual fund institutions in Kenya. Portfolio diversification was assessed by three operational variables namely; number of products, investors' risk awareness and behaviour of returns while the growth of mutual fund institutions was assessed through return on investments and assets under management. Factor analysis reduced the portfolio variables into investors' risk awareness and behaviour of returns. The results indicated that portfolio diversification had a very weak positive combined correlation with growth of mutual fund institutions linked with return on investments and a moderate positive combined correlation with growth of mutual fund institutions linked with assets under management. Portfolio diversification constructs explained just 1% changes in growth of mutual fund institutions linked with return on investments while they explain 26% of growth of mutual fund institutions linked with assets under management.

These findings were in agreement with Lei, (2009), Oyedijo (2012) and Rop *et al* (2016) who established that portfolio diversification improves the return to investors.

However they disagreed with Akewushola (2015), who concluded that diversification is associated with poorer performance for both affiliated firms and independent firms and Buffett (2015), observed that portfolio concentration outperforms diversified portfolios

Cross tabulation of the data collected revealed that 11% strongly agree that portfolio diversification affect the growth of mutual fund institutions in Kenya, 24.4% agree that growth of mutual fund institutions is influenced by portfolio diversification, 42.7% did not know whether portfolio diversification influences growth of mutual fund institutions and 22% said that portfolio diversification does not affect growth of mutual fund institutions. A bigger proportion of the respondent did not know whether portfolio diversification affects the growth of mutual fund institutions. This could be explained as either lack of proper understanding of risk or the risk attitude of the investors. There those investors who are risk takers, investors who look at the glass and say that it is half full and not half empty.

4.7 Regulatory Framework and Growth of Mutual Fund Institutions

The study sought to determine the influence of Regulatory framework on the growth of mutual fund institutions in Kenya. Regulatory framework was operationalized by three sub variables namely, registration process, ethical trading and full disclosure where ten factors were assessed and tested for factor analysis.

4.7.1 Descriptive Results of Regulatory framework

Regulatory framework was assessed by three measures namely registration process, ethical trading and full disclosure of financial information. Descriptive data shown on Table 4.40 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.40: Descriptive Statistics for regulatory framework

Opinion statement	N	Minimum	Maximum	Mean	Std. Deviation
1 Registration of a mutual fund institution takes a short duration.	82	1	5	3.50	1.260
2 Several documents are prepared before registration	82	1	5	3.26	1.098
4 Registration of mutual fund institution is automated in Kenya	82	2	5	3.74	.829
5 Mutual fund provisions do not allow any kind of unethical trading	82	2	5	3.74	1.245
6 The punishment for any form of unethical activities is very sever and prohibitive	82	2	5	3.76	1.084
7 Professional etiquettes are strictly adhered to in Mutual fund activities /Operations	82	1	5	3.41	1.111
8 Mutual fund regulations ensures that only competent people are in management of these firms	82	1	5	3.50	1.045
9 Mutual fund institutions are required to periodically resend newsletters to their clients	82	1	5	3.23	1.103
10 Mutual fund institutions religiously comply with this requirement	82	1	5	3.50	1.468
11 The newsletters sent fully cover the various aspects of mutual fund products	82	2	5	3.65	1.023
12 The newsletters are written in simple language for full absorption by the investors	82	1	5	3.41	1.154

Key: Ranked on a scale:1.0-1.7(strongly disagree); 1.8-2.5(disagree); 2.6-3.3(neutral); 3.4-4.1(agree); and 4.2-5.0(strongly agree)

Regulatory framework was assessed through registration process, ethical trading and full disclosure of financial information. Most respondents posted a mean score of between 3.5 and 3.76 implying that they agreed with most opinion statements and just a few posted a mean of between 3.26 and 3.50 implying neutrality with the opinion statements. Therefore, on average, most of the respondents agreed that all the three constructs influence growth of mutual fund institutions in Kenya.

4.7.2 Factor Analysis Results of Regulatory Framework.

The study sought to determine the influence of Regulatory framework on the growth of mutual fund institutions in Kenya. Results of Regulatory Framework had a total of eleven questions that were assessed for confirmatory validity for subsequent analysis.

Table 4.41: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.442	43.024	43.024	3.442	43.024	43.024	3.131	39.135	39.135
2	2.619	32.733	75.757	2.619	32.733	75.757	2.930	36.622	75.757
3	.705	8.818	84.575						
4	.678	8.479	93.054						
5	.264	3.298	96.352						
6	.185	2.316	98.668						
7	.071	.893	99.560						
8	.035	.440	100.000						

Extraction Method: Principal Component Analysis.

The result of the factor analysis given by Table 4.41 showed that there were two critical factors that were driving Regulatory framework which cumulatively accounted for 75.757% of the total variance. The first factor had a variance of 43.024% while the second had 32.733%. Each of the two critical factors had Eigen value of more than 1.

4.7.3 Rotated Component Matrix

Results presented in Table 4.42 showed the components for the regulatory framework. The variables comprise of eleven (11) factors and eight of them (8) variables were retained for subsequent analysis because all met threshold values of 0.4 and above (David *et al.*, 2010). Regulatory framework had construct of registration process, ethical trading and full disclosure.

Table 4.42: Regulatory framework Rotated Component Matrix

Opinion statement	Component	
	Reg. Process	Full Disclosure
1 Registration of a mutual fund institution takes a short duration.	.821	
2 Several documents are prepared before registration	.930	
3 Registration of mutual fund institution is automated in Kenya	.946	
4 Professional etiquettes are strictly adhered to in Mutual fund activities/Operations	.810	
5 Mutual fund institutions are required to periodically resend newsletters to their clients		.914
6 Mutual fund institutions religiously comply with this requirement		.801
7 The newsletters sent fully cover the various aspects of mutual fund products		.725
8 The newsletters are written in simple language for full absorption by the investors		.932

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Factor analysis reduced these to registration process and full disclosure. Ethical trading opinion statements are either absorbed by these two or were below 0.4 threshold. The first component/dimension was named as growth of mutual fund institutions linked with registration process and the second component/dimension as growth of mutual fund institutions linked with full disclosure.

Table 4.43: Descriptive results of regulatory framework

measurement	Regulatory framework	
	Registration Process	Full disclosure
Mean	3.650	3.4482
Cronbach alpha	.889	.860

Key: Ranked on a scale; strongly disagree (1.0-1.7), disagree (1.8-2.5), indifferent/neutral (2.6-3.3), agree (3.4 - 4.1) and strongly agree (4.2-5.0).

Growth of mutual fund institutions linked with registration process had a mean of 3.650 and cronbach alpha value of 0.889 which was far beyond the minimum threshold of 0.7. The second component/dimension was named as growth of mutual fund institutions linked full disclosure with a mean of 3.4482 and Cronbach alpha of 0.860. These results indicate that most of the respondents agreed that the constructs of regulatory framework influenced the growth of mutual fund institutions in Kenya.

This results are in agreement with Sharma (2012) which reveal that in order to secure the patronage of Indian investor mutual fund companies are expected to ensure full disclosure and regular updates of the relevant information along with the assurance of safety and monetary benefits.

4.7.4 Regulatory framework and Growth of mutual fund institutions Correlations Results

Correlation analysis was used to establish the relationship between Regulatory framework measures, registration, operation rules and full disclosure and growth of mutual fund institutions in Kenya. Table 4.44 presented correlation matrix with a varied degree of interrelationship between registration process and full disclosure and growth of mutual fund institutions. There is a mixed correlation between registration process and full disclosure and growth of mutual fund institutions. Registration process had a moderate positive and significant correlation with both

return on investment and assets under management. Therefore the regulatory measures are very important factors in the growth of mutual fund institutions. It should be remembered that the longer the registration period the less attractive the investment. Full disclosure had a strong correlation with both return on investment and assets under management. Full disclosure also had a statistically significant correlation with both return on investment and assets under management. This showed the importance of information to investors. Investors need full information to continuously manage their investments. This is in compliance with Chandra and Kumar (2011) who postulated that growth of firms has a strong correlation with strength of the legal framework. Investors need full information on every aspect of their intended or actual investments. This would allow them to re-organise their portfolios as per the interest rates.

Table 4.44: Correlation matrix of Regulatory framework and growth of mutual fund institutions

Variable		ROI	AUM	Reg process	Full Disclosure
ROI	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	82			
AUM	Pearson Correlation	.694**	1		
	Sig. (2-tailed)	.000			
	N	82	82		
Reg process	Pearson Correlation	.372**	.440**	1	
	Sig. (2-tailed)	.001	.000		
	N	82	82	82	
Full Disclosure	Pearson Correlation	.514**	.700**	.138	1
	Sig. (2-tailed)	.000	.000	.215	
	N	82	82	82	82

** . Correlation is significant at the 0.01 level (2-tailed).

4.7.5 Regulatory framework ANOVA Results

The ANOVA test was done to test if any of the constructs of regulatory framework significantly influences the growth of mutual fund institutions. Table 4.45 showed the results of regulatory framework and growth of mutual fund institutions linked with ROI.

Table 4.45: ANOVA results of regulatory framework and growth of mutual fund institutions linked with return on investment

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	26.713	2	13.356	21.852	.000 ^b
Residual	48.286	79	.611		
Total	74.999	81			

a. Dependent Variable: ROI

b. Predictors: (Constant), Reg process, Full Disclosure

The ANOVA results in Table 4.45 showed that the constructs of regulatory framework (Registration process and full disclosure) and growth of mutual fund institutions linked with return on investments. The table showed that at least one of the constructs of regulatory framework significantly influences growth of mutual fund institutions linked with return on investments (P-value 0.000 and F statistics of 21.825). Regulatory framework, therefore, explains the variance in growth of mutual fund institutions linked with return on investment in Kenya.

Table 4.46: ANOVA results of regulatory framework and growth of mutual fund institutions linked with assets under management

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	47.355	2	23.678	61.835	.000 ^b
Residual	30.250	79	.383		
Total	77.606	81			

a. Dependent Variable: AUM

b. Predictors: (Constant), Reg process, Full Disclosure

The ANOVA results in Table 4.46 showed that the constructs of regulatory framework (Registration process and full disclosure) and growth of mutual fund institutions linked with assets under management. The table showed that at least one of the constructs of regulatory framework significantly influences growth of mutual fund institutions linked with return on investments (P-value 0.000 and F statistics of 61.835). Regulatory framework explained the variance in growth of mutual fund institutions linked with return on investment in Kenya. This meant that the models adopted in the study were both significant and the variables tested fitted well in the models. The F- tests displayed that the null hypotheses was rejected, thus the models were valid since all of four regression variables were significant.

4.7.6 Model summary for regulatory framework and growth of mutual fund institutions.

Table 4.47 showed that the combined correlation between regulatory frameworks constructs and dependent variables (return on investments) is strong (.597). This results translates into a moderate coefficient of determination (35.6%). This implies that the explanatory power of this model is modest, that is, the independent variable accounts for only 35.6% of the changes in return on investments. The remaining 64.4% of changes was identified by other factors not captured in the model.

Table 4.47: Model summary for regulatory framework and growth of mutual fund institutions linked with return on investment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.597 ^a	.356	.340	.78180

a. Predictors: (Constant), Reg process, FD

The results further suggest that regulatory frameworks does significantly influence growth of mutual fund institutions linked with ROI. The model equations; growth of mutual fund institutions linked with return on investment = $\beta_0 + \beta_1$ Registration

process + β_2 Full disclosure. This equation only explains 35.6% of the variation in growth of mutual fund institutions

Table 4.48: Model summary for regulatory framework and growth of mutual fund institutions linked with assets under management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781 ^a	.610	.600	.61880

a. Predictors: (Constant), Reg process, FD

Table 4.48 showed that the combined correlation between regulatory frameworks constructs and dependent variables (assets under management) is very strong (.781). This results translates into a strong coefficient of determination (61%). This implies that the explanatory power of this model is strong, that is, the independent variable accounts for only 61% of the changes in return on investments. The remaining 39% of changes was identified by other factors not captured in the model. The results further suggest that regulatory frameworks does significantly influence growth of mutual fund institutions linked with Assets under management. The model equations; growth of mutual fund institutions linked with return on investment = $\beta_0 + \beta_1$ Registration process + β_2 Full disclosure. This equation only explains 61% of the variation in growth of mutual fund institutions.

4.7.7 Regression Results of Regulatory framework and Growth Mutual Fund Institutions

The general objective of the study was to determine the influence of Regulatory framework on growth of mutual fund institutions. The Multiple Linear Regression model was used to assess the overall effect of independent variables on dependent variable. The Ordinary Least Squares was used to determine the estimates of the coefficients. One of the problems that may violate the assumptions of Ordinary Least Square regression is multi-collinearity. Multi-collinearity was therefore examined by

computing tolerance and the variance inflation factor. According to Ringim (2012) a small tolerance value indicated that the variable under study was almost a perfect linear combination of the independent variables in the equation and therefore the variable should not be included in the regression equation. Tolerance is the proportion of a variable's variance that is not accounted for by the other independent variables in the equation (Garson, 2012). Tolerance was measured by calculating the variance-inflation factor. The rule of thumb is that a VIF should be less than 5 for the absence of a serious multi-collinearity problem. Therefore, all the regression model was subjected to statistical collinearity tests which determined that the study variables had a high tolerance level and were free from multi-collinearity since all the Variance Inflation Factor (VIF) for all the constructs were below 5 (Akiwanade, Dikko & Agboola, 2016). The analysis in Table 4.49 presents results on multiple linear regression model. All the constructs namely: Full disclosure and Registration process are statistically insignificant to growth of mutual fund institution linked with return on investment linked with return on investments.

Table 4.49: Coefficients Regression Results for regulatory framework and growth of mutual fund institutions linked with return on investment

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
	(Constant)	1.023	.420				2.438
Full Disclosure	.451	.087	.471	5.168	.000	.981	1.020
Reg. process	.314	.093	.307	3.368	.001	.981	1.020

a. Dependent Variable: ROI

The regression coefficients results of the regulatory framework measures showed that registration process and Full disclosure had statistically significant influence on growth of mutual fund institutions linked with return on investment in Kenya. This

implied that the null hypothesis failed to be accepted and the alternative hypothesis failed to be rejected i.e. H_{0A} is accepted since $\beta \neq 0$ and p-value is less than 0.05.

The regression model is summarized as shown below:

$$Y = 1.023 + -0.451X_1 + 0.314X_2.$$

Where, X_1 – Full Disclosure and X_2 –Registration process

It was concluded that there is statistically significant correlation between Regulatory framework measures i.e. Registration process and full disclosure significantly affect growth of mutual fund institutions in Kenya. These results are echoed by Kapoor and Sandhu (2010) who argued that accountability and transparency are key to conducting business in a responsible manner.

Table 4.50: Coefficients Regression Results for regulatory framework and growth of mutual fund institutions linked with assets under management

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.053	.332		.161	.873		
FD	.634	.069	.651	9.186	.000	.981	1.020
Reg process	.365	.074	.350	4.937	.000	.981	1.020

a. Dependent Variable: AUM. Key; FD- Full Disclosure and Reg process- Registration process

Table 4.50 displays the regression coefficients results of the regulatory framework measures i.e. registration process, ethical trading and full disclosure. Registration process, and Full disclosure had statistically significant influence on growth of mutual fund institutions linked with return on investment in Kenya. This implied that the null hypothesis was rejected, therefore, alternative hypothesis was accepted i.e. H_{0A} is accepted since $\beta \neq 0$ and p-value is less than 0.05.

The regression model is summarized as shown below:

$$Y = .053 + 0.634X_1 + 0.365X_2.$$

Where, X_1 – Full Disclosure and X_2 – Registration process

4.7.8 Discussion of the Results

The fourth research question was to determine the influence of Regulatory framework on the growth of mutual fund institutions in Kenya. Regulatory framework was assessed by three operational variables namely; registration process, ethical trading and full disclosure while the growth of mutual fund institutions was assessed through return on investments and assets under management. Regulatory variables were reduced to registration process and full disclosure through factor analysis. The results indicate that regulatory framework had a moderate positive combined correlation with growth of mutual fund institutions linked with return on investments and a strong positive combined correlation with growth of mutual fund institutions linked with assets under management.

The study concluded that there is statistically significant correlation between Regulatory framework measures i.e. Registration process and full disclosure significantly affect growth of mutual fund institutions linked with both assets under management and return on investments in Kenya. Regulatory framework constructs explained 33.7% changes in growth of mutual fund institutions linked with return on investments while they explain 63.7% of growth of mutual fund institutions linked with assets under management.

The study findings were in agreement with Aroni, Namusonge and Sakwa (2014), who established that provision of information tops the list of services to be provided in order to attract both customers and investors. Mutual fund managers should therefore endeavor to access quality information that will help in exploiting available business opportunities and realize growth (Wekesa *et al.*, 2014). Mutegi (2017)

established that Kenya's regulatory framework had some ambiguity and contradictions which needed to be sort out in order to promote asset based securities.

Cross tabulation of data revealed that only 2.4% of the respondents strongly agree that regulatory framework influences growth of mutual fund institutions, 53.7% of the respondents posted agree results to statement that regulatory framework influences growth of mutual fund institutions, 35.4% of the respondents did not know whether regulatory framework influences growth of mutual fund institutions or not and only 8.5% said that regulatory framework does not affect growth of mutual fund institutions. A bigger proportion of the respondents supported the assertion that regulatory framework influences growth of mutual fund institutions. Full disclosure had the greatest influence among the sub-variables.

4.8 Financial innovation and Growth mutual fund institutions

The study sought to determine the influence of financial innovation on the growth of mutual fund institutions in Kenya. Financial innovation was operationalized by two sub variables namely, value of intangible assets and net expenditure on research, where ten factors were assessed and tested for factor analysis

4.8.1 Descriptive Results of Financial Innovation

Financial Innovation was assessed by two measures namely new products and value of intangible assets. Descriptive data shown in Table 4.51 presented the results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.51: Descriptive Statistics

Opinion statement	N	Minimum	Maximum	Mean	Std. Deviation
1 There is always a new mutual fund product on offer.	82	1	5	3.57	1.466
2 New ways of service deliveries are common in mutual funds.	82	1	5	3.66	1.517
3 Expenditure on research and development is always on the rise.	82	1	5	3.50	1.345
4 The value of trade-marks are substantial in Mutual fund institutions.	82	1	5	3.54	1.484
5 Goodwill constitutes a significant portion of assets in mutual fund institutions.	82	1	5	3.41	1.154
Valid N (listwise)	82				

Key: Ranked on a scale:1.0-1.7(strongly disagree); 1.8-2.5(disagree); 2.6-3.3(neutral); 3.4-4.1(agree); and 4.2-5.0(strongly agree)

Financial innovation was assessed through net expenditure on Research and investment and value of intangible assets. Respondent agreed that almost all opinion statements influence the growth of mutual fund institutions. Therefore, on average, most of the respondents agreed that there all two constructs influence growth of mutual fund institutions in Kenya.

4.8.2 Factor Analysis Results of Financial Innovation.

The study sought to determine the influence of Financial Innovation on the growth of mutual fund institutions in Kenya. Financial Innovation had a total of five questions that were assessed for confirmatory validity for subsequent analysis. The result of the factor analysis in Table 4.52 showed that there were two critical factors that were driving Financial Innovation which cumulatively accounted for 93.758 percent of the total variance in this construct. The first factor had a variance of 70.759% while the

other had 22.998%. Each of two critical factors had Eigen value of more than 1, i.e. first factor had an Eigenvalue of 3.538 and the other had 1.150.

Table 4.52: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.538	70.759	70.759	3.538	70.759	70.759	3.464	69.273	69.273
2	1.150	22.998	93.758	1.150	22.998	93.758	1.224	24.485	93.758
3	.281	5.626	99.383						
4	.017	.339	99.722						
5	.014	.278	100.000						

Extraction Method: Principal Component Analysis.

4.8.3 Rotated Component Matrix.

Results presented in Table 4.53 showed the components made for the financial innovation. The variable comprised of Five (5) factors and all the five (5) variables were retained for subsequent analysis because they all met threshold values of 0.4 and above (David *et al.*, 2010).

Table 4.53: Rotated Component Matrix^a

Opinion statements	Factor Loading	
	NEP	VIA
1. There is always a new mutual fund product on offer.	.963	
2. New ways of service deliveries are common in mutual funds.	.979	
3. Expenditure on research and development is always on the rise.	.916	
4. The value of trade-marks are substantial in Mutual fund institutions.		.963
5. Goodwill constitutes a significant portion of Assets in mutual fund institutions.		.848

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 4.53 showed the variables for financial innovation. There were Five (5) variables which were subjected to critical factor analysis and all of them were found to be statistically significant and were therefore subjected to further statistical analysis.

Table 4.54: Descriptive Statistics for Financial Innovation

Measurement	Net expenditure on research	Intangible assets
Mean	3.5772	3.476
Cronbach Alpha	.945	.802

Key: Ranked on a scale; strongly disagree (1.0-1.7), disagree (1.8-2.5), indifferent/neutral (2.6-3.3), agree (3.4 - 4.1) and strongly agree (4.2-5.0).

The first component/dimension was named as growth of mutual fund institutions linked with expenditure on research and development and the second component/dimension was named as growth of mutual fund institutions linked with increase in intangible assets. Results of growth of mutual fund institutions linked with net expenditure in research and development had a mean of 3.5772 and cronbach alpha value of 0.945 which was far beyond the minimum threshold of 0.7. The second component/dimension was named as growth of mutual fund institutions linked with increase in tangible assets

had a mean of 3.476 with cronbach alpha value of 0.802. These results indicate that all the respondents agreed that the constructs of financial innovation influenced the growth of mutual fund institutions in Kenya.

4.8.4 Financial Innovation and Growth Correlations Results

Correlation analysis was used to establish the relationship between Financial Innovation measures, namely new products and value of intangible assets and growth of Mutual Fund Institutions in Kenya. Table 4.54 showed correlation matrix between financial innovation and growth of mutual fund institutions. There is a mixed correlation between net expenditure on research and development (NERD), value of intangible assets (VIA) and growth of mutual fund institutions. Net expenditure on research and development had a moderate positive correlation with return on investment and a strong correlation with assets under management.

Table 4.55: Correlation matrix of Financial Innovation and growth of mutual fund institutions

	Variable	ROI	AUM	NERD	VIA
ROI	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	82			
AUM	Pearson Correlation	.654**	1		
	Sig. (2-tailed)	.000			
	N	82	82		
NERD	Pearson Correlation	.235*	.510**	1	
	Sig. (2-tailed)	.033	.059		
	N	82	82	82	
VIA	Pearson Correlation	.373**	.663**	.649**	1
	Sig. (2-tailed)	.001	.000	.000	
	N	82	82	82	82

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Net expenditure on research and development also had significant correlation with both return on investment and assets under management at 5%. Value of intangible assets had moderate positive correlation with return on investment and a strong positive correlation with assets under management. Value of intangible assets had statistical significant correlation with both return on investment and assets under management at 5%. Therefore, the financial innovation measures are very important factors in the growth of mutual fund institutions.

4.8.5 Financial Innovation ANOVA Results

The ANOVA test was done to test the significance of the models and to test the existence of variable variations within the models. Table 4.55 showed that the measures of financial innovation, Value of intangible assets and net expenditure on research and development, and growth of mutual fund institutions linked with return on investment significant (P-value = 0.000, and F-statistic= 8.533).

Table 4.56: ANOVA results of financial innovation and growth of mutual fund institutions linked with return on investment

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.324	2	6.662	8.533	.000 ^b
	Residual	61.675	79	.781		
	Total	74.999	81			

a. Dependent Variable: Return on investments

b. Predictors: (Constant), Value of intangible assets, Net expenditure on research and development.

The table also indicated the fitness of the model for measuring the effect of financial innovation on growth of mutual fund institutions linked with return on investments. This meant that the model adopted in the study was both significant and the variables tested fitted well in the model.

Table 4.57: ANOVA results of financial innovation and growth of mutual fund institutions linked with assets under management

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	35.969	2	17.985	34.124	.000 ^b
Residual	41.636	79	.527		
Total	77.606	81			

a. Dependent Variable: Return on investments

b. Predictors: (Constant), Value of intangible assets, Net expenditure on research and development.

The ANOVA results in 4.56 showed that the models of financial innovation (Value of intangible assets and net expenditure on research and development) and growth of mutual fund institutions linked with assets under management was significant (P-value 0.000 and F-statistic= 34.124) and explained the variance in growth of mutual fund institutions linked with assets under management in Kenya. The table also indicated the fitness of the model for measuring the effect of financial innovation on growth of mutual fund institutions linked with return on investments. This meant that the model adopted in the study was both significant and the variables tested fitted well in the model.

4.8.6 Model summary for financial innovation and growth of mutual fund institutions.

Table 4.58: Model Summary-regression of financial innovation and growth of mutual fund institutions linked with Return on investment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.421 ^a	.178	.157	.88357

a. Predictors: (Constant), Value of intangible assets, Net expenditure on research and development.

Table 4.57 showed that the coefficient R was 42.1% indicating a moderate combined correlation between the financial innovations constructs and growth of mutual fund institutions linked with return on investments. The table further indicated that the combined constructs explains 17.8% ((R square = 0.178) influence growth of mutual fund institutions linked with return on investments. The remaining 82.2% of changes was identified by other factors not captured in the model. The results further suggested that the model was good to improve the growth of mutual fund institutions linked with return on investments.

The model equations; growth of mutual fund institutions linked with return on investment = $\beta_0 + \beta_1$ Value of intangible asset + β_2 net expenditure on research and development. This indicated that the variables; Value of intangible assets and net expenditure on research and development explained 17.8 percent of the variation in growth of mutual fund institutions linked with return on investment. The remaining 82.2 percent of changes are identified by other factors not captured in the model.

Table 4.59: Model Summary-regression of financial innovation and growth of mutual fund institutions linked with assets under management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.681 ^a	.463	.450	.72598

a. Predictors: (Constant), Value of intangible assets, Net expenditure on research and development.

Table 4.58 showed that the coefficient R was 68.1% indicating a high combined correlation between the financial innovations constructs and growth of mutual fund institutions linked with assets under management. The table further indicated that the combined constructs explained 46.3% ((R square = 0.463) influence growth of mutual fund institutions linked with assets under management. The remaining 53.7% of change was attributed to other factors not captured in the model. The results further suggested that the model was good to improve the growth of mutual fund institutions linked with assets under management.

The model equations; growth of mutual fund institutions linked with assets under management = $\beta_0 + \beta_1$ Value of intangible asset + β_2 net expenditure on research and development. This indicated that the variables; Value of intangible assets and net expenditure on research and development explained 46.3 percent of the variation in growth of mutual fund institutions linked with assets under management. The remaining 53.7 percent of changes are identified by other factors not captured in the model.

4.8.7 Regression Results of Financial Innovation and growth of mutual fund institutions.

The general objective of the study was to determine the influence of Regulatory framework on growth of mutual fund institutions. The Multiple Linear Regression model was used to assess the overall effect of independent variables on dependent variable. The Ordinary Least Squares was used to determine the estimates of the coefficients. One of the problems that may violate the assumptions of Ordinary Least Square regression is multi-collinearity. Multi-collinearity occurs when any independent variable is highly correlated with any of the other independent variables in the regression model. Multi-collinearity was therefore examined by computing tolerance and the variance inflation factor. According to Hair *et al.* (2010) a small tolerance value indicated that the variable under study was almost a perfect linear combination of the independent variables in the equation and therefore the variable should not be included in the regression equation. Tolerance is the proportion of a variable's variance that is not accounted for by the other independent variables in the equation (Garson, 2012). Tolerance may be measured by calculating the variance-inflation factor. The rule of thumb is that a VIF should be less than 5 for the absence of a serious multi-collinearity problem. Therefore, all the regression model was subjected to statistical collinearity tests which showed that the study variables had a high tolerance level and were free from multi-collinearity since none of the Variance Inflation Factor (VIF) for all the study variables were above 5 (tabachnick & Fidell 2019).

The analysis in Table 4.58 presents results on multiple linear regression model. All the constructs namely: Net expenditure on research and development and value of intangible assets are statistically significant to growth of mutual fund institution linked with return on investments.

Table 4.60: Coefficients Regression Results for financial innovation and growth of mutual fund institutions linked with return on investment

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.643	.297		8.887	.000		
NERD	-.278	.145	-.411	-1.917	.045	.227	3.408
VIA	.582	.170	.734	3.428	.001	.227	4.008

a. Dependent Variable: Return on investments

Regression analysis was conducted to empirically determine whether financial innovation measures i.e. Value of intangible assets, and net expenditure on research and development, had any significant influence on the growth of mutual fund institutions linked with return on investments in Kenya. Table 4.58 displays the regression coefficients results of the financial innovation measures (NERD and VIA) were statistically significant in explaining growth of mutual fund institution linked with return on investments in Kenya. This implied that the null hypothesis is rejected and the alternative hypothesis is accepted i.e. H_{0A} is accepted since $\beta \neq 0$ and p-value is less than 0.05.

$$Y = 2.643 - 0.278X_1 + 0.582X_2$$

Where: X_1 = net expenditure on research, X_2 = the value of intangible Assets.

This findings is in agreement with Mwangi and Namusonge (2014) and with Ngugi *et al.*,(2013) who established a link between innovation and business growth. Anyinitha and Khonmalai (2018) postulates that innovation enhanced the advantages

in competition via external factors. All these studies established that most of the innovating businesses indicated that they had realized increases in sales, customer base, and change of location and profits in monetary sense.

Table 4.61: Coefficients Regression Results for financial innovation and growth of mutual fund institutions linked with assets under management

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.651	.244		6.756	.000		
NERD	-.223	.119	-.323	-1.869	.065	.227	3.408
VIA	.764	.139	.947	5.476	.000	.227	3.408

a. Dependent Variable: Assets under management.

Table 4.59 displays the regression coefficients results of the financial innovation measures i.e. Net expenditure on research and development (NERD) and Value of intangible assets (VIA) and growth of mutual fund institutions linked with assets under management. NERD was found to have no statistically significant influence on growth of mutual fund institutions linked with assets under management while VIA was found to have a statistically significant influence on growth of mutual fund institutions linked with assets under management. This implied that the null hypothesis was accepted for NERD and rejected for VIA.

The overall regression table showed that financial innovation significantly impact on the growth of mutual fund institutions.

$$Y = 1.651 + .764X_1$$

Where; X1 = Value of intangible assets.

4.8.8 Discussion of the results

The fifth research question was to determine the influence of financial innovation on the growth of mutual fund institutions in Kenya. Financial innovation is the process of coming up with a new financial product or delivery system. Financial innovation was assessed by two operational variables namely; net expenditure on research and value of intangible assets while the growth of mutual fund institutions was assessed through return on investments and assets under management.

The results indicate that financial innovation had a moderate positive combined correlation with growth of mutual fund institutions linked with return on investments and a strong positive combined correlation with growth of mutual fund institutions linked with assets under management. Financial innovation measures (Net Expenditure on Research and Value of Intangible Assets) were statistically significant in explaining growth of mutual fund institution linked with return on investments in Kenya. NERD was found to have no statistically significant influence on growth of mutual fund institutions linked with assets under management while VIA was found to have a statistically significant influence on growth of mutual fund institutions linked with both return on investments and assets under management.

The findings of this study are that financial innovation constructs contributes only 17.8% of the mutual fund growth linked to return on investment and was found to be statistically insignificant while the constructs contribute 46.3% of mutual fund growth linked to assets under management and was also statistically insignificant. The findings are consistent with study by Aldemir (2011) who showed a positive significant impact of the intangible assets on firm growth for small companies. Segarra and Teruel (2011) showed that expenditure on Research and development had positive impact on firm's growth. Mwangi and Namusonge (2014) also established that process innovations are more critical to garment making businesses yet they are the most challenging in terms of costs and accessibility. Korir *et al.*, 2015 who established that financial innovativeness of commercial banks had a positive and significant effect on financial performance of the banks in Kenya.

Ombui and Amenyua (2016) which established that financial innovation affects financial performance of Savings and Credit cooperative societies in Kiambu County, Kenya

These findings were, however, in disagreement with Bara, Mugano and Roux (2016) who argued that the Global Financial Crisis of 2007 was caused by financial innovation. Bara, Mugano and Roux (2016) are of the view that securitization and subprime mortgages may have exacerbated the problem. Idu and Aboagye, (2014) found a negative relationship between financial innovation and economic growth in the long run, and a positive relationship in the short run in Ghana.

Cross tabulation of data collected revealed that 32.9% of the respondents strongly agree that financial innovation influences growth of mutual fund institutions, 32.9% agree that financial innovation influences growth of mutual fund institutions, 8.5% did not know whether financial innovation influences growth of mutual fund institutions or not, 8.5% disagree that financial innovation influences growth of mutual fund institutions and finally 17.1% strongly disagree that financial innovation influences growth of mutual fund institutions. This gives on average a bigger proportion supporting the assertion that financial innovation influences growth of mutual fund institutions. Financial innovation either refers to creating a new product or a delivery system. A new product is created when a completely new product is developed through research or an old is improved to make it more attractive to consumers hence an increase in sales. Service delivery innovation is meant to sell the existing products using unique distribution channels. A delivery system like internet sale of securities or sale of securities through a mobile telecommunication system like m-pesa enhances the sales of securities. Delivery innovation may also reduce the cost of operation thereby increasing the profitability of the entity.

4.9 Summary of Study Variables

The study sought to determine the factors which influence the Growth of mutual fund institutions in Kenya. The factors were identified as investors' perception, financial market liquidity, portfolio diversification, regulatory framework and financial

innovation. Correlation and regression analyses were used to determine the relationship and strength of these factors on the growth of mutual fund institutions to draw conclusions on this study.

4.10 Overall Goodness-of-fit Model Results

Multiple correlation coefficients (R) indicate the degree of linear relationship of growth of mutual fund institutions with all the predictor variables, whereas the coefficient of multiple determinations (R-square) shows the provision of the total variation in the dependent variable growth of mutual fund institution that is explained by the independent variables. Table 4.62 shows a very strong combined correlation between the identified drivers and the growth of mutual fund institutions in Kenya. The table also gives R-square value of 0.723, which means that 72.3% of the independent variables cause the change on dependent variable. A high degree of correlation among residuals of the regressions' data sets may produce inefficient results. As such, the presence of serial correlation among the OLS regressions is checked using Durbin and Watson's test statistic (Yupitun, 2008). Durbin-Watson statistic ranges in value from 0 to 4 with an ideal value of 2 indicating that errors are not correlated, although values from 1.75 to 2.25 may be considered acceptable. Some authors consider Durbin-Watson value between 1.5 and 2.5 as acceptable level indicating no presence of collinearity (Makori & Jagongo, 2013). Durbin-Watson value of 2.783 indicates that the model did not suffer from autocorrelation.

Table 4.62: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.789 ^a	.723	.598	.49436	2.783

a. Predictors: (Constant), Financial innovation, Investors perception, Financial Market Liquidity, Product Diversification, Regulatory Framework

a. Dependent Variable: GROWTH2

4.11 Overall Growth Correlations Results

Since a single construct in the questionnaire was measured by multiple items, the average score of the multi-items for a construct was computed and used in further analysis such as correlation analysis and multiple regression analysis (Wang, 2012). Pearson correlation analysis was conducted to examine the relationship between the variables (Wong & Hiew, 2005; Jahangir and Begum, 2008). As cited in Wong and Hiew (2005) the correlation coefficient value (r) range from 0.10 to 0.29 is considered weak, from 0.30 to 0.49 is considered medium and from 0.50 to 1.0 is considered strong. However, according to Field (2005), correlation coefficient should not go beyond 0.8 to avoid multi-collinearity. Since the highest correlation coefficient is 0.773 which is less than 0.8, there is no multi-collinearity problem in this study. All the associated pairs of variables were significant at level 0.05. All the hypothesized relationships developed were found to be statistically significant at 5% level of confidence. Table 4.61 shows that correlation between regulatory framework and Mutual fund institution growth was the strongest (R-value = 0.596, $p < 0.05$). This is followed by the relationship between Financial Innovation (FINV) whose (R-value = 0.450, $p < 0.05$). This was followed by portfolio Diversification which had a moderate relationship (r-value = 0.304, $p < 0.05$). Financial market liquidity and Investors perception were found to have very weak correlation coefficients of R= 0.070 and 0.024 respectively with P =values of 0.534 and 0.830 which indicates insignificant effect.

Table 4.63: overall Correlations matrix

		GROWTH	IP	FML	PD	RFW	FINV
GROWTH	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	82					
Investors' Perception.	Pearson Correlation	.024	1				
	Sig. (2-tailed)	.023					
	N	82	82				
Financial Market Liquidity	Pearson Correlation	.070	.249*	1			
	Sig. (2-tailed)	.061	.024				
	N	82	82	82			
Product Diversification	Pearson Correlation	.304**	.374**	-.073	1		
	Sig. (2-tailed)	.004	.001	.513			
	N	82	82	82	82		
Regulatory Frame Work	Pearson Correlation	.593**	.500**	-.215	.464**	1	
	Sig. (2-tailed)	.000	.000	.053	.000		
	N	82	82	82	82	82	
Financial Innovation	Pearson Correlation	.450**	-.048	-.248*	.346**	.632**	1
	Sig. (2-tailed)	.000	.666	.025	.001	.000	
	N	82	82	82	82	82	82

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

4.12 Overall Analysis of Variance (ANOVA) Results

The significance of the regression model was tested using Analysis of Variance (ANOVA) which provides information about levels of variability within the regression. ANOVA shows the importance of the relationship between the independent and the dependent variables. The F test provides an overall test of significance of the fitted regression model. Table 4.64 indicates an F value of 25.135 with p value of 0.000 that is < than 0.005, hence the model is significant. Therefore,

it indicates that all the variables in the equation are important hence the overall regression is significant.

Table 4.64: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.714	5	6.143	25.135	.000 ^b
	Residual	18.573	76	.244		
	Total	49.287	81			

a. Dependent Variable: GROWTH

b. Predictors: (Constant), FINV, IP, FML, PD, RFW

4.13 Overall Multiple Regression Results

Multiple regression analysis was used to analyze the relationship between a single dependent variable and several independent variables (Ringim, 2012). The results of regression analysis was as shown in table 4.63. In order to test for multi-collinearity among the predictor variables, variance-inflation factor (VIF) and tolerance were applied. The multi-collinearity statistics showed that the tolerance indicator for Investors Perception (IP), Financial Market Liquidity (FML), Portfolio Diversification (PD), Regulatory Framework (RFW) and Financial Innovation (FINV) are all greater than 0.1 and their VIF values are less than 10. The result indicates that no multi-collinearity problem has occurred (Ott & Longnecker, 2001). The F-statistics produced ($F = 25.135$) was significant at 5 per cent level (Sig. $F < 0.05$), thus confirming the fitness for the model

Table 4.65: overall regression Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
(Constant)	.033	.464		.070	.944		
IP	.850	.129	.727	6.579	.000	.406	2.466
FML	.489	.088	.445	5.544	.070	.770	1.298
PD	.164	.080	.169	2.036	.045	.719	1.391
RFW	1.381	.163	1.130	8.479	.000	.279	3.583
FINV	.149	.067	.248	2.220	.029	.398	2.510

a. Dependent Variable: GROWTH

Table 4.65 displays the regression coefficients results of the Investors' Perception, Portfolio diversification, Regulatory Framework and Financial innovation significantly affects the growth of mutual fund institutions. Investors' Perception (supported by $\beta=0.850$, p-value = 0.000), Portfolio diversification (supported by $\beta=0.169$, p-value = 0.045), Regulatory Framework (supported by $\beta= 1.381$, p-value = 0.000) and Financial innovation (supported by $\beta=0.149$, p-value = 0.029) significantly affect growth of mutual fund institutions. Financial Market Liquidity (supported by $\beta=0.489$, p-value = 0.0705) does not have statistically significant effect on growth of mutual fund institutions in Kenya.

I, therefore failed to accept the null hypotheses and fail to reject the alternative hypothesis for Investors' perceptions, Portfolio diversification, Regulatory framework and financial innovation but fail to reject the null hypothesis for financial market liquidity.

The optimal regression model therefore is presented as below:

$$Y = 0.033 + 0.850X_1 + 0.164X_3 + 1.381X_4 + 0.149X_5$$

Where,

Y	=	Growth of Mutual fund institutions
β_0	=	0.033 which is the co-efficient of the constant variable
$\beta_1 - \beta_5$	=	0.850, 0.164, 1.381 and 0.149 are estimates of the expected Increase in growth of mutual fund institutions
$X_1 - X_5$	=	Investors' Perception, portfolio diversification, Regulatory Framework and Financial Innovation

4.14 Summary of Research Hypotheses

Table 4.66: summary of research hypotheses

	P- values	Decision
H₀₁ There is no statistically significant influence of investors' perception on the growth of mutual fund institutions in Kenya.	.000	Fail to Accept
H₀₂ There is no statistically significant influence of financing market liquidity on the growth of mutual fund institutions in Kenya.	.0705	Fail to Reject
H₀₃ There is no statistically significant influence of portfolio diversification on the growth of mutual fund institutions in Kenya.	.045	Fail to Accept
H₀₄ There is no statistically significant influence of regulatory framework on the growth of mutual fund institutions in Kenya.	.000	Fail to Accept
H₀₅ There is no statistically significant of financial innovation on the growth of mutual fund institutions in Kenya.	.029	Fail to Accept

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the research findings and provides conclusion and recommendations in line with the topic of study that is to establish the determinants of growth of mutual fund institutions in Kenya.

5.2 Summary

The overall objective of this study was to determine the drivers of growth of mutual fund institutions in Kenya. In particular, the specific objectives of the study were; to determine the influence of Investors perception, financial market liquidity, portfolio diversification, regulatory framework and financial innovation on growth of mutual fund institutions in Kenya, with specific interest on listed mutual fund institutions in Nairobi Securities Exchange.

The study collected and presented data in chapter four with specific attention given to the objectives and research questions of the study which were used as units of analysis. Theoretical and empirical literature were used to compare the results of the study with previous studies. The study targeted listed mutual fund institutions. Target population was all 61 mutual funds at December 2016. The sample size of 53 funds was arrived at by applying Saunders's, Lewis's and Thornhil's formula. A pilot study was conducted to test reliability of the research instrument using a sample of twelve funds, selected using simple random sampling technique. In line with the findings presented and discussed in the previous chapter, the study derived the following conclusions.

5.2.1 The Influence of Investors perception on the Growth of mutual fund institutions in Kenya

The study failed to accept the null hypothesis implying that investors' perception has statistically significant influence on the growth of mutual fund institutions in Kenya.

The indicators of investors' perception were Affordability, tax treatment and consistency in performance. Descriptive statistical methods were used to arrive at the results. The investors' perception indicators were found to be statistically significant in explaining the influence of investors' perception on growth of mutual fund institutions. As such, a unit change in investors' perception resulted in a 0.169 change in the growth of mutual fund institutions in Kenya. Tax rates were found to be negatively correlated to the growth of mutual fund institutions in Kenya. This implies that the tax authorities should always consider the negative effects of raising tax rates. A compromise has to be established between revenue collection and creating a good ground for growth of mutual fund institutions. Financial securities developers must also consider the affordability of their financial products. This would help in attracting the would be investors. Affordability is relative to the amount available for investments and the investment attitude of the people.

5.2.2 The Influence of Financial Market Liquidity on the Growth of mutual fund institutions in Kenya

The study failed to reject the null hypothesis implying that financial market liquidity does not have statistically significant influence on the growth of mutual fund institutions in Kenya. Financial Market Liquidity was assessed through financial market immediacy, financial market depth, financial market breadth and financial market resilience. Descriptive statistical methods were used to arrive at the results. Most of the respondents agreed that Financial Market Liquidity measures: financial market immediacy, financial market depth, financial market breadth and financial market resilience greatly influenced growth of mutual fund institutions in Kenya. Inferential statistical methods also gave findings and deductions. Findings on correlation analysis indicated that there was a insignificant very weak positive

association between Financial Market Liquidity and growth of mutual fund institutions. The financial Market Liquidity indicators were found to be statistically insignificant in explaining the influence of financial market liquidity on growth of mutual fund institutions.

5.2.3 The Influence of Portfolio diversification on the Growth of mutual fund institutions in Kenya

The study failed to accept the null hypothesis implying that portfolio diversification has statistically significant influence on the growth of mutual fund institutions in Kenya. Portfolio diversification was assessed through the number of products, risk awareness and behaviour of returns. Descriptive statistical methods were used to reach at the results. Most of the respondents agreed that financial innovation measures: number of products, risk awareness and behaviour of returns greatly influenced growth of family mutual fund institutions in Kenya. Inferential statistical methods also gave findings and deductions. Findings on correlation and regression analyses indicated that there was a significant and strong positive association between Portfolio diversification and growth of mutual fund institutions. The Portfolio diversification indicators were found to be statistically significant though very weak in explaining the influence of Portfolio diversification on the growth of mutual fund institutions. As such, a unit change in Portfolio diversification resulted in a 0.149 change in the growth of mutual fund institutions in Kenya.

5.2.4 The Influence of regulatory framework on the Growth of mutual fund institutions in Kenya

The study failed to accept the null hypothesis implying that regulatory framework has statistically significant influence on the growth of mutual fund institutions in Kenya. Regulatory framework was measured through registration process, ethical trading and full disclosure. Descriptive statistical methods were used to reach at the results. Most of the respondents agreed that regulatory framework registration process, ethical trading and full disclosure greatly influenced growth of family mutual fund institutions in Kenya. Inferential statistical methods also gave findings

and deductions. Findings on correlation and regression analyses indicated that there was a significant and strong positive association between regulatory framework and growth of mutual fund institutions. The regulatory framework indicators were found to be statistically significant and very strong in explaining the influence of regulatory framework on the growth of mutual fund institutions. As such, a unit change in regulatory framework resulted in a 0.559 change in growth of mutual fund institutions in Kenya.

Stock, bond, and other securities markets must have rules of the road to prevent fraud, promote transparency, foster market liquidity, and ensure well-functioning trading and clearing of securities. Full information disclosure is necessary to enable the investors to make the correct investment decisions.

5.2.5 The Influence of Financial innovation on the Growth of mutual fund institutions in Kenya

The study failed to accept the null hypothesis implying that financial innovation has statistically significant influence on the growth of mutual fund institutions in Kenya. The indicators of financial innovation were value of intangible assets and net expenditure on research and development. Descriptive statistical methods were used to reach at the results. Most of the respondents agreed that financial innovation were value of intangible assets and net expenditure on research and development greatly influenced growth of family mutual fund institutions in Kenya. Inferential statistical methods also gave findings and deductions. Findings on correlation and regression analyses indicated that there was a significant and strong positive association between financial innovation and growth of mutual fund institutions. The financial innovation indicators were found to be statistically significant in explaining the influence of financial innovation on the growth of mutual fund institutions. As such, a unit change in financial innovation resulted in a change in a 0.348 change in growth of mutual fund institutions in Kenya.

Most of the innovating funds indicated that they had realized increases in sales, customer base, and change of location and profits in monetary sense. Innovation has

continued to influence businesses in the garment making industry in many ways. Innovation is such a vital component in any business undertaking that without it, it is virtually impossible for a business to survive due to the increased competition that is observed within industries. In order for a business to thrive and grow, the management of the business must see innovation as a key tool or proponent of business success. Most of the innovations were adoptions of products, processes and technologies developed outside the country, but some firms were to come up with their own new designs, software for simple accounting, and production.

5.3 Conclusions

The aim of this study was to determine the drivers of growth of mutual fund institutions in Kenya, with specific interest in the listed mutual fund institutions in Nairobi Security Exchange. The conclusions were based on the objectives of this study.

5.4 Recommendations

This section presents the recommendations which arose from the study. The recommendations were;

5.4.1 Managerial Recommendations

The findings of the study on drivers of mutual fund institutional growth extended the frontiers of knowledge by generating valuable insights for both academic and managerial action. Therefore, the results of this study are of interest to managers of fund institutions as well as individual investors. The study showed that financial innovation is very key for growth of mutual fund institutions just as it key to any business growth. For innovation to succeed, managers must constantly watch the environment and be able to identify and respond appropriately to changes in the business environment. Good environmental scanning requires managers with appropriate skills and experience to carry it out.

The second determinant in terms of influence is regulatory framework. This aspect cuts across managerial as well as policy. The managerial aspect deals with operational professionalism of managers. Managers must strive to trade on behalf of their investors professionally. Management should also ensure full and prompt disclosure of all material facts relating to their investments. This is important because investors may want to change their portfolios given the market information.

The third determinant was the investor's perception. The study established that affordability construct is the most influence in this category. Management should therefore ensure that the cost of investing in mutual fund products are reduced as much as possible. This is in line with the income level of the targeted investors. In Kenya most of the investors come from low to middle level income earners. Management of these funds may have to borrow from the Kenyan government move of reducing the cost of investing in the treasury bills by developing m-akiba bond which goes at a minimum cost of sh.3,000 down from a minimum of sh.50,000. This resulted in over-subscription of the first batch of M-Akiba bills.

5.4.2 Policy Recommendations

The policy issues highlighted in this study include the tax incentive, regulatory framework as well as financial market liquidity. Tax incentives have always played a pivotal role in influencing investment decision. Smart investors always look at how best to reduce his tax burden resulting from his investment income. An individual investor has no control over the tax structure. This is a preserve of the Government. The investor has to study tax structure carefully in order to take advantage of its provisions. As a matter of policy, the government should develop tax structures which encourage investors in mutual fund products. This will help cumulate the much sought for capital for industrial take-off.

Liquidity of financial markets hinges on development of the market. The government needs to come up with policies that would help improve, information efficiency of the market, transaction as well as location efficiency. The penalties for unethical trading should be clearly spelt out and circulated to all stakeholders. Since most of

the mutual fund products are financial products, investors miss out on what is happening behind the curtains. Fund managers therefore have to strive to serve the interest of investors.

5.4.3 Study's Contribution to Existing Knowledge

This study has established that there is need to improve the business and environment in which mutual funds operate as well as management in order to carefully study and design financial products as well as their delivery channels that will enhance the growth of mutual fund institutions. The findings of this study contribute to the existing body of knowledge but inclined towards encouraging growth of mutual fund institutions. Not much had been done on growth of mutual fund institutions in Kenya and African context generally. Most of the studies, especially in Asia and the East, have been focusing more on performance issues rather than both environmental and legal aspects of Mutual fund institutions. Thus, the findings of this study have contributed in filling this knowledge gap by focusing on these areas and their impact on growth of mutual fund institutions. Key issues discussed and revealed in this study, under the wider environmental Investors' perception, financial market liquidity, portfolio diversification, regulatory framework and financing innovation. Therefore, the study builds further on the recent and existing empirical information in the field of creating a conducive environment for mobilization of funds for industrial take-off.

5.4.4 Suggestions for research

Despite the fact that this study produced important results, it also faced certain limitations which in turn offer opportunities for further research. This research was conducted in Kenya and whether the results from this research would be consistent with other countries" mutual fund institutions need to be verified through further research. Future studies can focus on conducting a multi-country comparison to test the influence of the identified drivers on growth of mutual fund institutions.

This study concentrated on only five aspects of business growth which are Investors perception, financial market liquidity, portfolio diversification, regulatory framework and financial innovation. There are other factors which may influence mutual fund institutions' growth which should be explored through further research such as Organizational factors measured by indicators of the attributes of the company, corporate strategy, corporate resources, and dynamic capability, individual factors measured by indicators of personal traits, growth, motivation, individual competencies, and personal background etc. This study also used subjective values to measure the variable. Other studies can also be done using objective variables like growth models.

Finally, the fact that the study was based on a listed firms in Nairobi Security Exchange (NSE), limits the generalization of the results.

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APPENDICES

Appendix 1: Letter of Introduction.

Dear Sir/Madam,

REF: INTRODUCTION

I am Isaac Otiende Ojung'a, a student pursuing Doctorate of philosophy (PhD) in Business Administration, Finance Option, at Jomo Kenyatta University of Agriculture and Technology. The program requires that a research be carried out in a relevant area. Pursuant to this, am carrying out a research on Determinants of growth of mutual fund institutions in Kenya: A Survey of Mutual fund institutions listed by Nairobi Securities Exchange.

A questionnaire has been developed addressing several selected drivers of growth of mutual fund institutions in Kenya. Based on your work experience and knowledge, kindly respond to the following questions to the best of your knowledge. I wish to assure you that the information you provide will be used for academic purpose and will be treated with strict CONFIDENTIALITY. Thank you for your assistance.

Otiende Isaac Ojung'a

Jomo Kenyatta University of Agriculture and Technology–Mombasa CBD

Ojungaisaac@yahoo.com

Tel .0724805704.

Appendix ii: Research Questionnaire

You have been identified as respondent to this study. Am requesting you to kindly take a few minutes to answer the questions in this questionnaire as objectively as possible. Your objective response will facilitate the efficacy of the results. I assure you that your answers will be kept completely confidential and will be used for academic purposes only.

SECTION A

(1) Where does the fund under your management fall? Money Market Fund,
Income Fund Balanced Fund, Managed Retirement Fund or
Equity Fund.

(2) What is your age in years?

Below 30 30 to 40
 40-50 Above 50

(3) How long have you been working in this company? Less than 3
years 3- 5years 5-7years Over 7 years

(4) What is your highest educational level? Diploma Bachelor's
Degree
Master's Degree Doctorate degree

(5) For how many years has this fund/ unit been operating?

0-10 year 10-20 years 20-30 year
30years and above

SECTION B: INVESTORS' PERCEPTION

Indicate the extent to which you agree with the following statements by using a scale of 1 to 5 where 1= strongly disagree and 5 = strongly agree.

Attributes of Investors' Perception.	1=strongly disagree, 2= Disagree, 3 = Neither disagree nor agree, 4 = agree, 5= Strongly agree.				
Investing in mutual fund products requires little amount	1	2	3	4	5
The cost of investing in a mutual fund product is low	1	2	3	4	5
Mutual fund products are readily available for those who wish to invest in them	1	2	3	4	5
Mutual funds earnings are taxed at the lowest rate in Kenya	1	2	3	4	5
The tax rules on mutual fund earnings are simple and clear to aid full compliance	1	2	3	4	5
Tax collection on mutual fund Earnings are conveniently done.	1	2	3	4	5
Most mutual fund institutions promise a fixed rate of return.	1	2	3	4	5
Most mutual fund investments are relatively safer	1	2	3	4	5
The earnings from mutual fund investment are higher	1	2	3	4	5
Consistency of performance of mutual funds	1	2	3	4	5

Please indicate the Interest earned for the last ten years.

Interest earned.	Equity fund Sh. 000,000	Bond fund Sh. 000,000	Balanced fund Sh. 000,000	Money market fund. Sh. 000,000	Retirement fund. Sh. 000,000
Year 2006					
Year 2007					
Year 2008					

Year 2009					
Year 2010					
Year 2011					
Year 2012					
Year 2013					
Year 2014					
Year 2015					

Please indicate the amount invested in each fund for each year.

Amount invested.	Equity fund	Bond fund	Balanced fund	Money market fund.	Retirement fund.
	Sh. 000,000	Sh. 000,000	Sh. 000,000	Sh. 000,000	Sh. 000,000
Year 2006					
Year 2007					
Year 2008					
Year 2009					
Year 2010					
Year 2011					
Year 2012					
Year 2013					
Year 2014					
Year 2015					

SECTION C: FINANCIAL MARKET LIQUIDITY

Indicate the extent to which you agree with the following statements by using a scale of 1 to 5 where 1= strongly disagree and 5 = strongly agree.

Attributes of Market liquidity.	1=strongly disagree, 2= Disagree, 3 = Neither disagree nor agree, 4 = agree, 5= Strongly agree.				
The process of effecting a transaction is relatively short	1	2	3	4	5
The number of transactions per day are relatively small	1	2	3	4	5
The transfer process has been fully automated	1	2	3	4	5
Many people have joined mutual fund investments	1	2	3	4	5
No individual buyer can influence the price of a mutual fund Product	1	2	3	4	5
No individual seller can influence the price of a mutual fund product	1	2	3	4	5
The orders placed on mutual fund products are enough to negate price effect.	1	2	3	4	5
The size of the orders are big enough to stabilize the prices.	1	2	3	4	5
The price of mutual fund products are relatively stable.	1	2	3	4	5
Investors in mutual fund products are so many that it is not possible for investors to control the prices of these products.	1	2	3	4	5
The flow of new orders on mutual fund products are Unpredictable.	1	2	3	4	5
Market imbalances on prices are quickly self-adjusted.	1	2	3	4	5
There is very minimal use of circuit breakers	1	2	3	4	5

SECTION D: PORTFOLIO DIVERSIFICATION

Indicate the extent to which you agree with the following statements by using a scale of 1 to 5.

Attributes of portfolio diversification.	1=strongly disagree, 2= Disagree, 3 = Neither disagree nor agree, 4 = agree, 5= Strongly agree.				
Different mutual fund products respond differently to different economic factors	1	2	3	4	5
Mutual fund managers have completely diversified each investors' portfolio.	1	2	3	4	5
Risk associated with different mutual fund products are carefully evaluated and managed properly	1	2	3	4	5
Different mutual fund products have different rates of returns	1	2	3	4	5
Mutual fund products rates of return are affected by different economic factors	1	2	3	4	5
The rates of returns are commensurate to risk levels.	1	2	3	5	5
Investors in mutual funds are risk takers	1	2	3	4	5
Investors in mutual fund products are risk averters	1	2	3	4	5
Investors in Mutual fund products are risk neutral	1	2	3	4	5

SECTION E: REGULATORY FRAMEWORK

Indicate the extent to which you agree with the following statements by using a scale of 1 to 5

Attributes of regulatory framework.	1=strongly disagree, 2= Disagree, 3 = Neither disagree nor agree, 4 = agree, 5= Strongly agree.				
Registration of a mutual fund institution takes a short duration.	1	2	3	4	5
Several documents are prepared before registration	1	2	3	4	5
Registration of mutual fund institution is automated in Kenya	1	2	3	4	5
Mutual fund provisions do not allow any kind of unethical trading	1	2	3	4	5
The punishment for any form of unethical activities	1	2	3	4	5

is very sever and prohibitive					
Professional etiquettes are strictly adhered to in Mutual fund activities/Operations	1	2	3	4	5
Mutual fund regulations ensures that only competent people are in management of these firms	1	2	3	4	5
Mutual fund institutions are required to periodically resend newsletters to their clients	1	2	3	4	5
Mutual fund institutions religiously comply with this requirement.	1	2	3	4	5
The newsletters sent fully cover the various aspects of mutual fund products	1	2	3	4	5
The newsletters are written in simple language for full absorption by the investors	1	2	3	4	5

SECTION E: FINANCIAL INNOVATION

Indicate the extent to which you agree with the following statements by using a scale of 1 to 5

Attributes of Innovation.	1=strongly disagree, 2= Disagree, 3 = Neither disagree nor agree, 4 = agree, 5= Strongly agree.				
There is always a new mutual fund product on offer	1	2	3	4	5
New ways of service deliveries are common in mutual funds	1	2	3	4	5
Expenditure on research and development is always on the rise.	1	2	3	4	5
The value of trade-marks are substantial in Mutual fund institutions.	1	2	3	4	5
Goodwill constitutes a significant portion of Assets in mutual fund institutions	1	2	3	4	5

SECTION F: GROWTH OF MUTUAL FUNDS

Indicate the extent to which you agree with the following statements by using a scale of 1 to 5

Attributes of Growth.	1=strongly disagree, 2= Disagree, 3 = Neither disagree nor agree, 4 = agree, 5= Strongly agree.				
Mutual funds in Kenya reports high Profit.	1	2	3	4	5
Mutual funds in Kenya pay high Dividends/ interest to their investors.	1	2	3	4	5
Mutual funds in Kenya pay high returns on equity	1	2	3	4	5
Investors in mutual funds have been increasing in Numbers.	1	2	3	4	5
The number of mutual fund institutions have increased tremendously in Kenya.	1	2	3	4	5
Investors have steadily increased their investments in Mutual fund institutions.	1	2	3	4	5
Mutual fund institutions have tremendously invested in real estates and other fixed assets	1	2	3	4	5
Net asset value of mutual fund products have had a steady increase	1	2	3	4	5

Appendix iii: Registered mutual funds in Kenya as at 30th June 2017

Fund Asset Managers	Type of Fund(s) Managed
<p>African Alliance Kenya Investment Bank Limited.</p> <p>1st Floor, Wing B, Transnational Plaza, Mama Ngina St, Nairobi, Kenya</p> <p>Phone: +254 20 2762000</p>	<p>1. Money Market Fund</p> <p>2. Fixed Income</p> <p>3. Managed retirement Fund</p> <p>4. Equity Fund</p>
<p>British-American Asset Managers Limited.</p> <p>2833000 30375-00100,NAIROBI Britam Centre, Upper Hill</p>	<p>1. Money Market Fund</p> <p>2. Fixed Income Fund</p> <p>3. Balanced Fund</p> <p>4. Managed Retirement Fund</p> <p>5. Equity Fund</p>
<p>CO-OP Trust Investment Services Limited.</p> <p>3276000 48231-00100,NAIROBI Co-operative Bank House, Haile Selassie Avenue</p>	<p>1. Fixed Income</p> <p>2. Equity Fund</p> <p>3. Balanced Fund</p> <p>4. Managed Retirement Fund</p>
<p>Genesis Kenya Investment Management Limited</p>	<p>1. Managed Retirement Fund</p> <p>2. Equity Fund</p>
<p>ICEA Unit Trust Scheme</p> <p>2221652 46143-00100, NAIROBI ICEA Lion Centre, 4th Floor, Riverside Park, Chiromo Road</p>	<p>1. Money Market Fund</p> <p>2. Equity Fund</p> <p>3. Fixed income Fund</p>

<p>Madison Asset Management Services Limited.</p> <p>2864502 20092-00100, NAIROBI Madison Insurance House, Upper Hill Road</p>	<p>1. Managed Retirement Fund</p> <p>2. Equity Fund</p> <p>3. Balanced Fund</p> <p>4. Money Market Fund</p>
<p>Old Mutual Asset Managers (Kenya) Limited.</p> <p>2829000 11589-00400, NAIROBI Old Mutual Building, Corner, Mara/Hospital Road</p>	<p>1. Equity Fund</p> <p>2. Money Market Fund</p> <p>3. Balanced Fund</p>
<p>Sanlam Investment Management Kenya Limited</p>	<p>1. Balanced Fund</p> <p>2. Equity Fund</p> <p>3. Money Market Fund</p>
<p>Stanlib Kenya.</p> <p>3268508 30550-00100, NAIROBI Liberty House, Mamlaka Road</p>	<p>Equity</p> <p>Money market</p> <p>Balance fund</p> <p>Bond fund</p>
<p>CIC Assets Management..</p> <p>2823000 59485-00200, NAIROBI 8th Floor, CIC Plaza II , Mara Road</p>	<p>1 Money Market Fund</p> <p>2 Bond Funds</p> <p>3 Equity Fund</p> <p>4 Balanced Fund</p>
<p>Commercial bank Of Africa.</p> <p>2884444 30437-00100,</p>	<p>Bond funs</p> <p>Money market fund</p>

NAIROBI CBA Centre, Mara & Ragati Roads	Equity fund
Suntra investment limited	Money market Balanced fund Equity fund
Centum investment limited International House, 5th Floor Nairobi . 316303	Equity Bond Commodities
Pine bridge investment. 4967000 67262-00200, NAIROBI Africa Re Centre, Hospital Road, Upper Hill	Bonds fund Equity fund Money market fund
Alpha Africa Asset management. 2595448 34530-00100, NAIROBI Crawford Business Park, 4th Floor Suite 26, State House Road	Equity Commodities Bonds fund Real estate
Appollo Asset investment company 3641000 30389-00100,NAIROBI Apollo Centre, Ring road, Westlands	Bond fund Money market fund Multi-asset strategy Balanced fund.
UAP Insurance Company limited, Bishop Gardens Towers, Bishop Road	UAP Money Market Fund UAP High Yield Bond Fund

P.O. Box 43013-00100, Nairobi, Kenya	UAP Enhanced Income Fund UAP Dividend Maximizer Fund
Pan African Unit Trust Scheme. 3rdFloor, Pan Africa Life House, Kenyatta Avenue, Nairobi, Kenya. P.O Box 7848,00100, Kenya. Tel +254 20 222 0559 Fax +254 20 224 2463.	Pan African Money Market Fund Pan African Dividend Plus Fund Pan African Balanced Fund

(Source: CMA Website - Listing As at 30th June 2017)

Appendix iv: Rotated component Matrices.

Table 4.5 Rotated Component Matrix for growth of mutual fund institutions

Opinion statement	Factor Loading	
	ROI	AUM
Mutual fund institutions in Kenya report high Profit.	.876	.379
Mutual funds in Kenya pay high Dividends/ interest to their investors.	.740	.056
Mutual funds in Kenya earn high returns on investments.	.788	.402
Investors in mutual funds have been increasing in Numbers.	.771	.169
The number of mutual fund institutions have increased tremendously in Kenya.	.540	.342
Investors have steadily increased their investments in Mutual fund institutions.	.451	.949
Mutual fund institutions have tremendously invested in real estates and other fixed assets.	.372	.900
Net asset value of mutual fund products have had a steady increase.	.096	.631

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Table 4.7 Investors' Perception Rotated Component Matrix^a

Opinion statements	Component	
	1	2
Investing in mutual fund products requires little amount	.115	.978
The cost of investing in a mutual fund product is low	.321	.762
Mutual fund products are readily available for those who wish to invest in them.	.098	.940
Mutual funds earnings are taxed at the lowest rate in Kenya.	.908	.011
The tax rules on mutual fund earnings are simple and clear to aid full compliance.	.981	.059
Tax collection on mutual fund Earnings are conveniently done	.783	.242

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Table 4.20 Rotated Component Matrix^a for financial market liquidity

Opinion statements	Component	
	Market Resilience	Market breadth
The process of effecting a transaction is short.	.803	.232
The number of transactions per day are relatively small	.934	.014
Many people have joined mutual fund investments	.660	.266
No individual buyer can influence the price of a mutual fund Product.	.813	.164
The flow of orders on mutual fund products are unpredictable.	.881	.101
Market imbalances on orders are quickly self-adjusted.	.716	.243
The orders placed on mutual fund products are enough to negate price effect.	.107	.832
The size of the orders are big enough to stabilize the prices.	.025	.836
The price of mutual fund products are relatively stable.	.000	.917

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Table 4.31 Product diversification Rotated Component Matrix^a

Opinion statements	Component	
	1	2
Different mutual fund products respond differently to different economic factors.	.889	.199
Mutual fund managers have completely diversified each investors' portfolio.	.891	.178
Risk associated with different mutual fund products are carefully evaluated and managed properly.	.858	.217
Investors in mutual funds are risk takers	.611	.056
Investors in mutual fund products are risk averters	.883	.057
Investors in Mutual fund products are risk neutral	.833	.077
Different mutual fund products have different rates of returns.	.083	.848
The rates of returns are commensurate to risk levels	.410	.738

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Table 4.42 Regulatory framework Rotated Component Matrix

Opinion statement	Component	
	1	2
Registration of a mutual fund institution takes a short duration.	.821	.193
Several documents are prepared before registration	.930	.100
Registration of mutual fund institution is automated in Kenya	.946	.052
Professional etiquettes are strictly adhered to in Mutual fund activities/Operations	.810	-.086
Mutual fund institutions are required to periodically resend newsletters to their clients	-.067	.914
Mutual fund institutions religiously comply with this requirement	.033	.801
The newsletters sent fully cover the various aspects of mutual fund products	.165	.725
The newsletters are written in simple language for full absorption by the investors	.089	.932

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

4.53 Financial innovation Rotated Component Matrix^a

	Factor Loading	
	NEP	VIA
There is always a new mutual fund product on offer.	.963	.254
New ways of service deliveries are common in mutual funds.	.979	.123
Expenditure on research and development is always on the rise.	.916	.034
The value of trade-marks are substantial in Mutual fund institutions.	.092	.963
Goodwill constitutes a significant portion of Assets in mutual fund institutions.	.319	.848

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.