Effect of Investment in Treasury Bonds and Equity on Market Capitalization of Investment Firms Listed at NSE

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Abstract:
Market capitalization of investment firms has been challenged by many emerging factors which are exacerbated by dynamic business environment. Many scholars have used firm related factors, both internal and external to evaluate contributing factor to investment firms' performance with little regard to portfolio diversification approaches. Therefore, lack of adequate empirical evidence on the significant effect of portfolio diversification on market capitalization of investment firms motivated this study to investigate effect of investment in Treasury bonds, and equity estate on market capitalization of investment firms listed at NSE. The study was based on modern portfolio theory and Winton's diversification theory. The study adopted descriptive survey design and used a secondary data collection sheet to collect secondary data. The study targeted investment firms listed at NSE where a census method was used to select all the respondents to participate in the study. Descriptive statistics summarized data into meaningful forms while for variable relationships, inferential statistics was computed using STATA 15. All analyzed data were presented in form of tables and graphs. The findings revealed that portfolio diversification has positive effect on market capitalization of listed investment firms at NSE. Investment in Treasury bonds and equity were found to have significant effect. In this regard, the study concluded that portfolio diversification has positive effect on market capitalization of investment firms listed at the NSE. The study therefore recommended concerted efforts by the policy makers; NSE and CMA, Stock brokers and investment advisors and commercial Banks will be the only solution to realize a vibrant investment market in Kenya. This will result provide investment firms with long term financial security since they are not affected by inflationary tendencies.
Key Word: Market Capitalization, Portfolio diversification, Investment in Equity, Investment in Treasury bonds, Nairobi Securities Exchange

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I. Introduction

Market capitalization of investment firms has elicited mixed reactions from potential investors because while some investment firms record stable financial performance, others record downward performance. Investment involves a possibility of variation or deviation in the actual return from the expected return. The return of an investment is a major determinant of whether the investors will sacrifice their present resources or not. The investors are more interested in investments or securities that promise higher returns than those that promise lower returns Estrada (2019). Investment is the commitment of present financial resources with the hope of achieving higher returns in the future. It involves sacrificing certain present values in order to gain future uncertain benefits. It also deals with time, inflation and uncertainty of future payments. Investment requires strategic decision making such as timing, amount, mix, type and grade of investment. According to Estrada (2019), the term investing may be associated with a variety of activities involving the spending of money and whose focus is geared towards the improvement of the investors' wealth. Institutional investors invest majorly because of the desire to pass money from the present into the future as well as increasing and protecting investors' wealth (Pavelkova & Dehning, 2017).

Further, Pavelkova and Dehning (2017) asserted that the choice of a portfolio that an investor chooses depends on their risk profile and not only on returns. Similarly, Sethilnathan (2016) argues that in investment, more so in portfolio management, risk and return are the most crucial measures in making investment decisions. That, even though investors are aware of the benefits of diversification they appear to adopt a naive diversification strategy where they form portfolios without considering the correlations among the stocks. Therefore, portfolio diversification involves adoption of several investment portfolios to minimize risks associated with non performing portfolios. For instance, a government is a debt in the form of a loan between

the lender and the borrower (Felicien, 2015). For the lender, a Treasury bonds is an investment that promises fixed returns while it is a debt to the borrower who should pay periodical fixed interest to the lender. Generally, Treasury bonds bear less risk than stocks while at the same time promising lower returns. However, Treasury bonds still carry reasonable risk in terms of price risk and risk of default (also known as credit risk). The Treasury bonds can be widely classified into two categories, that is, corporate bonds and Treasury bonds. Treasury bonds promise lower returns with corresponding lower risk while corporate bonds promise higher returns with commensurate high risk (Bhattacharjee, 2017).

Therefore, a Treasury bonds is simply a promise to repay money, with interest, on a certain date in the future. However, while stocks represent ownership shares in a corporation, a treasury bond is an IOU that obligates the borrower to pay the lender a specified sum of money at regular intervals and repay the principal amount of the loan at the maturity date. Therefore, the holder of a Treasury bonds do not have the ownership privileges that a stockholder does (Bhattacharjee, 2017). An equity investment is money that is invested in a company by purchasing shares of that company in the stock market. These shares are typically traded on a stock exchange (Sang, 2017). It is an operation where an individual or company invest money into a private or public company to become a shareholder. The most basic equity investment operation is the purchase of a common share. Common shares are pieces of a given business, also known as stocks. These stocks entitle the owner to a certain portion of the profits and assets and they can be bought either privately or publicly, depending on how the company is currently structured (Sang, 2017).

Therefore, diversification is a technique that is employed to reduce risk by allocating funds across various financial assets and industries. Effective diversification is achieved where assets with negative correlation are combined in the portfolio with the motive of achieving optimal portfolio. Positive diversification value exists for any assets that are imperfectly correlated, the lower the correlation between the assets, the higher the diversification value (Norsim, Yakob & McGowan, 2019). Further, for a portfolio to be truly diversified, stocks from different industries and different sized companies must be used in its construction, and that diversification is increased with dissimilar companies from various industries due to the fact that stocks are not all affected by the same economic factors(Norsim, Yakob & McGowan, 2019). Therefore this study endevours to examine influence of portfolio diversification on market capitalization of investment firms listed at Nairobi securities exchange, Kenya.

Investment companies in Kenya are licensed by the capital markets authority of Kenya (CMA). Registration of investment firms is done under the Capital Markets Act 2001, whereby the firms are registered under collective investment schemes (CIS). Each investment company is required by the Act to operate following the conditions set out in the license given. As at 31st January 2020, only five investment firms were registered with the CMA and listed with the NSE in Kenya. The listed investment companies are Kurwitu Ventures limited, Olympia Capital Holdings Limited, Transcentury Limited, Centum Investment Company limited, and Home Afrika Limited (CMA, 2020). Listed Investment companies in Kenya typically invest in a diversified portfolio of assets. To make money for their shareholders and investors, they employ professional fund managers to invest in a wide range of assets than most people could not practically invest in themselves and are responsible for the management of billions of shillings' worth of assets on behalf of investors (Nairobi Securities Exchange, 2020). To implement portfolio diversification, listed investment companies hold a wide range of assets which can include shares, securities and property, meaning that investor's investment is not exposed to the fortunes of just one or a few investments. Market capitalization of the investment companies is based mainly on diversification especially of the best performing securities reflecting the financial performance of the firms. Financial performance of investment companies quoted at the NSE involves a financial risk-based analysis approach (CMA, 2020)

Statement of the Problem

Market capitalization of investment firms especially in dynamic business environment shows inconsistent trends as most investors do not engage in very risky investment ventures that record negative or insignificant market capitalization (Estrada, 2019). Statistically, the market capitalization for the listed investment firms in Nairobi Securities Exchange has recorded a steady decline from the year 2016 to 2020 (NSE, 2021). Centum Investment limited market capitalization dropped from KES 42,255,553 in 2016 to 15,006,000 in 2020. This represented 64.0% decrease in market capitalization during the study period. Home Africa limited market capitalization reduced from KES 1,985,751,068.00 in 2016 to KES 384,992,554.00 in 2020. This represented 81.0% decrease in market capitalization. Similarly, Olympia Capital Holdings Limited market capitalization declined from KES 280,000,000.00 in 2016 to KES 136,000,000.00 in 2020 representing 51.0% decline in market capitalization. Lastly, market capitalization of Trans Century declined from KES 7,876,070,665.00 in 2016 to KES 2,251,216,596.00 in 2020 which represent 71.0% drop in market capitalization (NSE, 2021). In this regard, Sethilnathan (2016) argued that in investment , risk and return are the most crucial measures in making investment decisions; and that even though investors are aware of the benefits

of diversification they appear to adopt a naive diversification strategy where they form portfolios without giving proper consideration to the correlations among the stocks. Hitt, Hoskinson and Kim (2017) find that many of the prior global studies differed on the kind of association between diversification and Investment Company's profitability. Yahaya et al. (2015), Ogada (2016), Mochabo (2017), Sigve and Lars (2017 studies were inconclusive on the viability of diversification approaches; and more so the studies were based on banks and not investment firms. Kioko and Ochieng (2020) in their study on market capitalization of investment firms in Kenya found that while real estate and equity investments showed positive relationship, government investment revealed a negative relationship with financial performance of investment firms, thus suggesting a further empirical inquiry in the existence of the negative relationship. Arising from continuous decline in market capitalization of investment firms in Kenya and inconclusive findings on the effect of diversification on market capitalization of investment firms, motivated this study to fill these contextual and empirical gaps by examining the influence of portfolio diversification on market capitalization of investment firms listed at NSE.

Objectives of the Study
    i)   To examine effect of investment in Treasury bonds on market capitalization of investment firms listed at NSE.
    ii)   To examine the effect of investment in equity on market capitalization of investment firms listed at NSE.

Research Questions
    i.   How does investment in Treasury bonds affect market capitalization of investment firms listed at NSE?
    ii.   Does investment in equity affect market capitalization of investment firms listed at NSE?
    iii.

II. Literature Review

Theoretical Framework
The study was guided by the following theories; Winton's diversification theory and Modern Portfolio theory

Modern Portfolio theory
Modern Portfolio Theory (MPT), a theory put forth by Markowitz (1952) based on the idea that risk averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward. It is one of the most important and influential economic theories dealing with finance and investment (Kaplan and Schoar, 2005). Also called "portfolio theory" management theory suggests that it is possible to construct an "efficient frontier" of optimal portfolios, offering the maximum possible expected return for a given level of risk. It suggests that it is not enough to look at the expected risk and return of one particular stock. By investing in more than one stock, an investor can reap the benefits of diversification, particularly a reduction in the riskiness of the portfolio. MPT quantifies the benefits of diversification, also known as not putting all of your eggs in one basket (Kaplan and Schoar, 2005). The risk in a portfolio of diverse individual stocks will be less than the risk inherent in holding any one of the individual stocks. Markowitz showed that investment is not just about picking stocks, but about choosing the right combination of stocks among which to distribute one's nest egg.

The theoretical rationale for investing in an alternative assets class such as stocks, governments and other securities is to improve the risk and reward characteristic of an investment portfolio with the expectation that the assets will offer a higher absolute return whilst improving portfolio diversification (Bodie, 2005). This theory thus connects to this study in the sense that the effect of portfolio composition along efficient frontier is determined by level of risk taken by the investors and returns accrued out of the portfolio diversification can consequently impact on investment firm's market capitalization. This theory therefore, informs independent variables of the study. MPT was used to anchor investment portfolio diversification because of its applicability on scrutinizing diversification and market capitalization. MPT theory acknowledges diversification as very important for risk mitigation and increasing expected returns. The theory advocates for mathematically evaluating portfolio diversification to maximize returns. According to MPT theory, spreading investments throughout unrelated stocks in this case investment in Treasury bonds and equity can lead to maximization of the firm's potential revenues irrespective of whether there is economic growth or not.

Winton's diversification theory
In an attempt to model a bank's choice between different diversification approaches, Winton (1999) developed a framework where he shows that the effect of for instance, a diversified loan portfolio on performance strongly depends on the level of sector risk and monitoring incentives. According to the theory, specialized bank with a loan portfolio exposed to low levels of risk will have a low probability of failure. Diversification will thus have few benefits. Moreover, in the presence of high levels of risk, diversification may

increase the likelihood of bank failure; a diversified bank is exposed to more potential sector downturns, which increases the probability of failure. According to his model, benefits of diversification are in fact greatest when the investment portfolio is exposed to moderate risk levels. Winton justifies this by referring to a risk level high enough to pose a threat of failure if a bank specializes, but not so high that a downturn in one sector is severe enough to cause the failure of a diversified bank. This dynamic implies a nonlinear relationship between return and diversification conditioned on the degree of risk.

Winton (1999) further argued that whenever increased diversification lessens banks' ability or incentive to monitor, the chance of bank failure increases. For instance, when entering a new sector a bank has to gain thorough understanding and knowledge of the market to develop effective monitoring. Such sectoral knowledge takes time to acquire, and the bank will have a competitive disadvantage against incumbent banks. This is in line with the view of Mishkin et al. (2013) regarding how a specialized bank may benefit from a more efficient screening and monitoring process due to superior industry knowledge. This theory therefore connects to this study in the sense that the theory forecasts a positive or negative effect of diversification on market capitalization and the diversification strategies are theorized to have a significant positive influence on the market capitalization of the investment firms only up to a certain extent beyond which additional risks and expenses are bound to occur. This theory therefore informs market capitalization.

Conceptual Review

This is a diagrammatic representation of the linear relationships between independent variables (Investment in Treasury bonds and investment in equity) and the dependent variable (market capitalization of investment firms listed on NSE) as illustrated in figure 1.0.
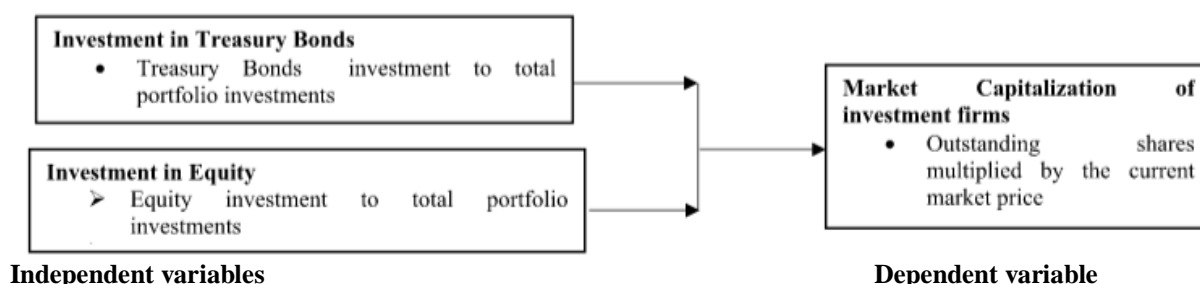

Independent variables   **Dependent variable**

Figure 1.0: Conceptual Framework

Empirical Review
Effect of Investment in Treasury Bonds on Market Capitalization

Badia, Pina and Torres (2019) studied the financial performance of government portfolios based on Environmental, Social and Governance criteria (ESG). The findings suggested that high rated Treasury bonds, according to environmental, social, and governance (ESG) dimensions, outperformed low ranked Treasury bonds under any cutoff, although the study found no significant difference, thus the need for a further study. A study conducted by Barnes and Burnie (2016) analyzed the effects of government portfolio composition on the financial performance of diversified industries listed in the Canadian Stock Exchange for the period 2008 -2013. The study findings indicated that the expectations generated using the exante time series returns resulting from the yield curves of Treasury bonds did not result in improved performance as the individual Treasury bonds had different maturities. A study conducted by Hanin, Noriza and Mohamad (2017) conducted a study to establish the impact of Treasury bonds both corporate and treasury governments on the financial profitability of public listed insurance companies in Turkey. The profitability performance of measured by financial profitability as a dependent variable while investment in Treasury bonds as the independent variable. The results show that there is a significant relationship between financial profitability and investment in Treasury bonds among publicly listed insurance companies in Turkey.

Barnes and Burnie (2016) investigated the effects of government portfolio composition on the performance of industries in Canada. The findings of the research revealed that the expectations generated by time series returns obtained from the yield curves of governments did not positively influence the performance since the individual Treasury bonds had different maturities. Hailu (2018) investigated the significance of investment in equity securities on the financial performance of insurance companies in Ethiopia. The study concluded that investment in Treasury bonds had an unfavourable and inconsequential consequence on return on assets. However, the study was based on insurance firms and ROA was used, a gap was filled by this study that is based on investment firms.

Effect of Investment in Equity on Market Capitalization

A study conducted by Ilahi, Jamil and Kazmi (2016) aimed at determining the effects of portfolio share diversification on the financial performance of investment banks in Pakistan for the period 2009 to 2013. The study findings indicated a very high relationship between portfolio share diversification and the financial performance of investment banks in Pakistan. Based on the financial ratios, the study indicated that six out of the ten investment banks had a very high return on equity. This was because they had a highly diversified portfolio in shares compared to the other investment banks. A study conducted by Harelimana (2017), analysed the effects of equity securities on the financial performance and risk management of the Rwanda Social Security Board (RSSB). The researcher found there was a significance strong relationship between equity securities in portfolio and the financial performance risk management at RSSB where the Pearson correlation coefficient was found to be 0.964 and 0.789 respectively. The study therefore concluded that equity securities investment affects the financial performance of RSSB. The study recommended international equity security diversification to maximize financial returns on the portfolio.

Saleh (2015) conducted a study to determine the relationship between firm's financial performance and investments in equity securities with evidence from the oil and gas sector of Pakistan. The study findings indicated that there was a strong negative relationship between financial performance and investment in equity securities. The study findings concluded that investment in shares negatively influenced the financial performance of firms in the oil and gas sector due to price volatility and a high risk return relationship associated with investment in equity securities. According to Narayanasamy and Thirugnanasoundari (2016), in their study which was aimed at analysing the risk and return of equity securities in India, argue that to accurately measure the impact of equity securities investment on financial performance, both the amount invested in equity securities and the total investment in a portfolio should be taken into consideration.

Wafula (2014) conducted a study to determine the impact of equity securities investment on the financial performance of mutual funds in Kenya. The study took a descriptive research design approach. The study revealed that equity securities investment affects the portfolio and financial returns of mutual funds in Kenya. The study concluded that equity securities diversification positively influences the portfolio returns thus enhanced financial performance. A study conducted by Chepkorir (2018), analysed the influenced of equity portfolio diversification on the financial performance of commercial banks listed in the NSE. The study findings indicated that established that investment in equity securities as part of a diversified portfolio had a positive and strong correlation with financial performance.

Research Gaps

Empirically, there have been inconclusive researches on feasible solutions to market capitalization of investment firms. For instance, Hitt, Hoskinson and Kim (2017) summarily reported that many of the prior global studies differed on the kind of association between diversification and Investment Company's profitability. In Kenya, Kioko and Ochieng (2020) study on financial performance of investment firms in Kenya found that while equity investments showed positive relationship, government investment revealed a negative relationship with financial performance of investment firms, thus suggesting a further empirical inquiry to interrogate the existence of the negative relationship. Therefore, due reported case of drop in market capitalization of investment firms in Kenya and inconclusive studies in the global arena on the association between diversification and financial of investment firms, motivated this study to fill these contextual and empirical gaps by examining the effect of portfolio diversification on market capitalization of investment firms listed at NSE.

III. Material And Methods

This study adopted descriptive research design. That is, descriptive research involves collecting data that answers questions from sampled participants of the study. The target population for this study was those cases that contain the desired information consists of 5 investment firms listed at NSE with a total of 25 observations. In this regard, the unit of analysis was the investment firms. This study's sampling frame was the 5 investment firms listed at NSE. Since the target population is less than 100 respondents, a census method was adopted to select all the five investment firms listed at NSE. Secondary data was obtained from NSE handbooks. The researcher then contacted NSE and requested NSE handbook between 2016 and 2020. The research used secondary data collection sheet as per the conceptualized study variables then use to collect secondary data from audited financial statements of investment firms. The data collected was used to compute ratios for individual study variables. Data analysis included both descriptive and inferential statistics where model specification estimation and rationale of variables were done. Descriptive statistics included measure of central tendency; mean and measure of variability; standard deviation, maximum and minimum. These descriptive statistics was used to develop indices and measures to summarize the collected data (Kothari, 2007). The study used inferential statistics which are regression analysis and correlation analysis to test null hypotheses. These

statistical tests were at 5% significance level. Secondary data was transformed into natural logarithm. The level of significance of 5% was used as a benchmark. If the P value is less than 0.05 at 5% significance level, reject the null hypotheses and accept the alternative and vice versa. Standard linear regression model was used to measure the influence of investment in treasury bonds and equity on market capitalization. This included fixed and random effects regression model as well as linear regression models. All analyses were done using STATA 15.

IV. Result and Discussion

Descriptive Analysis

The objective of the descriptive analysis was to describe the properties of the data and to identify any unusual observations that may cause problems during inferential analysis. Thus, initial exploration of the data using simple descriptive tools was provided to describe and summarize the data generated for the study. The descriptive statistics of interest included mean, standard deviation, minimum and maximum as presented in table 1.

Table 1: Descriptive Statistics

Stats	Market Capitalization (000*)	Investment in Equity	Investment in Treasury bonds
N	25	25	25
Min	116000	0.040744	0.027507
Max	42300000	0.238426	0.818551
Mean	6230000	0.097715	0.284883
Std Dev.	11300000	0.053349	0.274114
Skewness	1.949173	1.390229	0.799449
Kurtosis	5.772918	3.874529	2.26525

Investment in equity was calculated by finding the ratio of equity investment to total portfolio investments. Investment in equity ranged from 0.040 (4%) to 0.238 (24%) between 2016 and 2020. The distribution had a mean of 0.097 (8%) and standard deviation of 0.053 (5.3%). There was absence of normality as indicated by Skewness less than 2 (1.39) and kurtosis less than 6 (3.874). Investment in Treasury bonds was calculated by finding the ratio of Treasury bonds investment to total portfolio investments. Investment in Treasury bonds ranged from 0.027 (3%) to 0.818(82%) between 2016 and 2020. The distribution had a mean of 0.284 (28%) and standard deviation of 0.274(27%). There was absence of normality as indicated by Skewness less than 2 (0.78) and kurtosis less than 6 (2.57). In this study, market capitalization was calculated by multiplying outstanding shares and share price. Market capitalization ranged from 116,000 to 42,300,000 between 2016 and 2020. The distribution had a mean of 6,230,000 and standard deviation of 11,300,000. These figures are in thousands. There was absence of normality as indicated by Skewness less than 2 (1.95) and kurtosis less than 6 (5.77). Figure 2 shows trend of market capitalization between 2016 and 2020. It reduced from 2016 to 2017 before increasing in 2018 and thereafter it reduced up to 2020. However, there are notable outliers during the study period implying some firms performed better than others
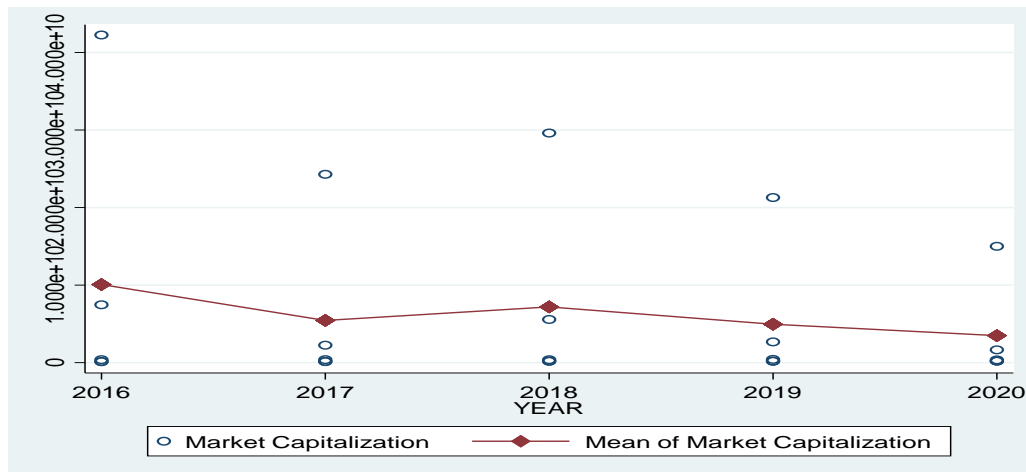

Figure 2: Scatter Plot for Market Capitalization between 2016 and 2020

Inferential Analysis

Unit Root (Stationarity Test)

Stationarity test was utilized in determining if the statistical characteristics such as variance, mean, as well as autocorrelation change with the passage of time (Unit Roo. The test results for the LevinLin Chu unit root are shown in Table 2. Panels with unit roots were discarded because the p values for all variables were less than 0.05. With this, the panel data for all the variables became stationary.

Table 2: LevinLin Chu unit root test

LevinLin Chu unit root test			
Variable	**Hypothesis**	**p value**	**Verdict**
Market Capitalization	Ho: Panels contain unit roots	0.0340	Reject Ho
Investment in Equity	Ho: Panels contain unit roots	0.0001	Reject Ho
Investment in Treasury bonds	Ho: Panels contain unit roots	0.0054	Reject Ho

Hausman Test (Choice of Model)

A Hausman test was carried out to determine whether to use the fixed effect or random effect model to address objectives of this study. Under the test, the null hypothesis is that there is no significant correlation between the individual effects and the independent variables. Results in the table 3 indicated a prob>chi2 value of 0.9419 which is greater than critical P value at 0.05 level of significance which implies that the null hypothesis that a random effect model is the best was rejected. The study hence adopted fixed effect regression model. The results are as shown in Table 3.

Table 3: Hausman Test

	Coefficients			
	(b) Fixed	**(B)** Random	**(bB)** Difference	**sqrt(diag(V_bV_B)) S.E.**
Investment in Equity	4.817015	0.646987	4.17003	0.91689
Investment in Treasury bonds	3.110546	2.104376	1.00617	0.45345

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic
$\text{chi2}(34) = (bB)'[(V\_bV\_B)^{(1)}](bB)$
$= 0.39$
$\text{Prob>chi2} = 0.9419$

Correlation Analysis

To explore the effect of portfolio diversification on Market capitalization, a correlation analysis was conducted. The results of the correlation between portfolio diversification and market capitalization pertinent results are summarized in Table 4.0. The results indicated that investment in Treasury bonds has a significant positive effect on the market capitalization of listed investment firms at NSE($r = 0.4684$, P=0.0182). Equity investment has a positive and significant effect on the market capitalization of listed investment firms at NSE($r = 0.355$, P=0.0316).

Table 4.0: Pearson Correlation Analysis

		Market capitalization	**Treasury bonds**	**Equity Investment**
Treasury bonds	Pearson Correlation	0.4684[*]	1	
	Sig. (2-tailed)	0.0182		
	N	25	25	
Equity investment	Pearson Correlation	0.3550[*]	0.3043	1
	Sig. (2-tailed)	0.0316	0.1391	
	N	25	25	25

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

Linear Regression

Linear regression analysis was conducted to establish direct effect of investment in treasury bonds and equity on market capitalization of listed investments firms at Nairobi Securities Exchange. The results are as follows:

Effect of Treasury bonds on Market capitalization
The study sought to examine effect of investment in Treasury bonds on market capitalization of investment firms listed at NSE. The study adopted fixed effect model and the results are presented in Table 5.

Table 5: Regression Fixed Effect of Treasury bonds on Market capitalization

M.Cap	Coef.	Std. Err.	T	P>t	[95% Conf. Interval]	
Treasury Bonds	0.11634	0.05685	2.046	0.0195	0.042649	0.195328
_cons	20.79987	0.097906	212.45	0.0000	20.59496	21.00479
Weighted Statistics						
Rsq:				Number of obs =		25
within =	0.3867			Number of groups =		5
between =	0.2157			F(1,19) =		4.23
overall =	0.2193			Prob > chi2 =		0.0195

The coefficient of determination (R-sq = 0.2193) which was statistically significant Prob > chi2 = 0.0195<0.05. This is an indication that 21.93% of the variations in market capitalization is explained by investments in Treasury bonds. The low r-square can be attributed to the selected individual independent variable not having a high explanatory power on market capitalization. Thus, incorporating more predictor values could yield an improvement in the strength of the model. Findings show that Treasury bonds investments positively and significantly affect market capitalization (P>|z| = 0.0195<.05). This implies that a unit increase in Treasury bonds investment leads to increased market capitalization. The regression model is as shown below:
Market capitalization= 20.79987+0.11634 Treasury bonds

Effect of Equity investment on Market capitalization
The study sought to examine effect of investment in equity on market capitalization of investment firms listed at NSE. The study adopted fixed effect model and the results are presented in Table 6.

Table 6: Regression Fixed Effect of Equity on Market capitalization

M.Cap	Coef.	Std. Err.	T	P>t	[95% Conf. Interval]	
Equity Investment	0.222635	0.102517	2.1717	0.0056	0.014959	0.460229
_cons	20.34986	0.194761	104.49	0.0000	19.94222	20.7575
Weighted Statistics						
Rsq:				Number of obs =		25
within =	0.1684			Number of groups =		5
between =	0.1449			F(1,19) =		5.85
overall =	0.1260			Prob > chi2 =		0.0056

The coefficient of determination (R-sq = 0.1260) which was statistically significant Prob > chi2 = 0.0056<0.05. This is an indication that 12.60% of the variations in market capitalization is explained by investments in equity. The low r-square can be attributed to the selected individual independent variable not having a high explanatory power on market capitalization. Thus, incorporating more predictor values could yield an improvement in the strength of the model. Findings show that equity investments positively and significantly affect market capitalization (P>|z| = 0.0056<.05). This implies that a unit increase in equity investment leads to increased market capitalization. The regression model is as shown below
Market capitalization= 20.34986+0.222635 Equity Investments

Does investment in Treasury bonds affect market capitalization of investment firms listed at NSE?
The first objective of the study was to examine effect of investment in Treasury bonds on market capitalization of investment firms listed at NSE. Correlation results showed that Treasury bonds investments (r=0.4684, p=0.0182) had a positive and significance relationship on market capitalization of the investments companies in the Nairobi Securities Exchange. Similar results were obtained by Badia, Pina, and Torres (2019) who indicated that there is significant relationship between Treasury bonds and market capitalization. Noriza (2015) found that there is a positive relationship between the variables even though the relationship was not a strong relationship.
Further, regression analysis indicated a positive and significant effect of Treasury bonds investments on market capitalization of the investments firms listed at Nairobi Securities Exchange (β=0.11634, p=0.0195). This implies that a unitary increase in Treasury bonds investments led to an increase in the market capitalization

of investment companies quoted at the Nairobi Securities Exchange by 0.11634 units holding other factors constant. The findings agree with Rop, Muturi and Bokongo (2015) who analysed the development of investment diversification on the market capitalization of Kenya's commercial banks. The research affirmed the presence of a consequential association between Treasury bonds and the market capitalization of Kenyan commercial banks. This implied that Treasury bonds had a positive and consequential strength on the performance of commercial banks in Kenya. Nonetheless the Treasury bonds dimension was applied to the banking sector whereas the current study used key investment firms. However, the findings disagree with Barnes and Burnie (2014) who investigated the effects of Treasury bonds portfolio composition on the performance of industries in Canada and findings of the research revealed that the expectations generated by time-series returns obtained from the yield curves of Treasury bonds did not positively influence the performance since the individual Treasury bonds had different maturities.

Does investment in Equity affect market capitalization of investment firms listed at NSE?
The second objective of the study was to examine effect of investment in equity on market capitalization of investment firms listed at NSE. Correlation results showed that equity investments (r=0.355, P=0.0316) had a positive and a significance relationship on market capitalization for the investments companies listed at the Nairobi Securities Exchange. The results are in agreement with Wafula (2014) revealed that equity securities investment affects the portfolio and financial returns of mutual funds in Kenya. The study concluded that equity securities diversification positively influences the portfolio returns thus enhanced financial performance. According to Goetzmann and Kumar (2008), there is a strong positive relation between the equity securities investment and financial performance.

Regression analysis indicated that there was a positive and significant effect of equity investments on market capitalization for the investments firms listed at Nairobi Securities Exchange (β= 3.110, p= 0.032). This implies that a unitary increase in equity investments led to an increase on the market capitalization of investment companies quoted at the Nairobi Securities Exchange by 3.110 units holding other factors constant. The findings are consistent with the comparative analysis of the impact of asset allocation on portfolio performance as medium-term investments in India was carried out by Bhattacharjee (2017) whose results revealed that the average return on Equity fund was significantly greater than the average return on Debt but significantly lower than the average return on balanced funds. The researcher reckoned that investment in equity had a positive impact on portfolio performance. The results are in tandem with Sang (2017) who found that there existed a significantly positive relationship between the weight of equity and funds returns. The findings are also in agreement with Rop, Muturi and Bokongo (2015) determined that there existed a substantial relationship between buying shares and market capitalization of commercial banks in Kenya and hence the need of commercial banks to regularly buy shares to raise their performance and provide the enabling environment that will accelerate financial growth. Lastly, Ngunjiri (2016) established that there was a direct association between market capitalization and equity returns of quoted companies at the NSE.

V. Conclusion and Recommendation
The study concluded that Treasury bonds have significant positive effect on market capitalization. An increase in Treasury bonds would results to significant increase in market capitalization. Treasury bonds carry lower risk compared to other assets like equities, as the returns are guaranteed by the government. There are some market-related risks, but by simply holding on to the governments until maturity, you can nullify the risk. The study concluded that equity investment has positive and significant influence on the market capitalization of investment companies listed firms. The positive and significant coefficient for equity implied that increase in the equity investments had a significant increased effect on the market capitalization for the investments firms at Nairobi Securities Exchange. Equity investments thus offers an opportunity for share prices when invested with stable or fast growing firms in the market. In addition the equity markets offers dividends and price yields for the investors within shorter periods of time.

Based on the effect of treasury bonds on market capitalization which is seen by correlation and regression analysis, the study recommends that investment firms should consider investing more on treasury bonds given the same market conditions. The study further found that the funds are better off invested through treasury bonds since they carry lower risk compared to other assets like equities, as the returns are guaranteed by the government especially long term returns which enhance market capitalization. The study further recommends that investment firm should maintain investment in equity so that to increase their market capitalization. The management of the investment firms listed at the NSE should strive to improve the market capitalization of their firms through equity investment as they(equity) offers investors a diversified investment option typically for a minimum initial investment amount and there is possibility to increase the value of the principal amount invested. This comes in the form of capital gains and dividends.

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