

## **FINANCIAL LEVERAGE AS A DETERMINANT OF CORPORATE INVESTMENT DECISIONS OF FIRMS LISTED AT NAIROBI SECURITIES EXCHANGE IN KENYA**

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### **ABSTRACT**

*This study aimed at the effect of leverage on corporate investment decisions of firms listed at the NSE. This study used both primary and secondary data. The study adopted descriptive research design and the target population was 64 firms listed on the Nairobi Securities Exchange (NSE). Data was analyzed using descriptive statistics, correlation analysis and regression analysis using SPSS version 23.0. The study used simple linear regression models to establish the relationship between the dependent and independent variables. From the findings, there were clear working capital management guidelines by the company to avoid bankruptcy. The study concludes that financial leverage affects corporate investment decisions of firms listed at the NSE. The study also concludes that a significant positive relationship exists between leverage and investment, for medium sized firms, there is a negative relationship between financial leverage investment for medium firms and positive relationship between leverage and investment in large firms. The study also recommends that the management of NSE and CMA in Kenya should work hand in hand to ensure that financial experts and analysts are in place to guide investors in decision making process.*

*Keywords: Corporate Investment Decisions, Financial Leverage, Nairobi Securities Exchange*

### **INTRODUCTION**

The investment decision is normally done on either or both of the tangible and intangible investment programs that would lead to growth of a firm and its ability to sustain that growth in the long run (Bodie, Drew, Basu, Kane & Marcus, 2013). The investment decision on capital expenditure programs may include investing in research and development (R&D) outlays which may in future provide discretionary investment opportunities or investing in replacement projects that may lead to firm growth. Bierman and Smidt (2012) noted that investing in upgrading of infrastructure like IT network connectivity and advanced technology or in replenishing of new capital goods like machinery and equipment, could allow the firm certain actions in future like having the capacity expansion ability or introduce new products into the market

In China, findings of Li, Dey and Jodi (2010) mixed significantly the relationship between debt financing and corporate investment decisions, by using the method of the multiple linear regression on the data from 2006-2008 of 60 Chinese real estate listed companies. In India, Franklin and Muthusamy (2011) presented a paper analyzing the impact of leverage on firm's investment decision of Indian pharmaceutical companies during the

period from 1998 to 2009. The results revealed a significant positive relationship between leverage and investment, while a negative relationship between leverage investment for medium firms and positive relationship between leverage and investment in large firms are identified.

In Pakistan, Muhammad, Amir and Hazoor (2016) investigated the impact of the financial leverage on the investment decisions of the listed companies in KSE-30 Index of Pakistan. It identifies the most important factor that influences investment decision of the company and which causes the bankruptcy of Pakistani listed firms. The empirical findings of the study reported that the financial leverage has a negative and significant impact on the investment decisions.

In Mauritius, Mohun (2008) focused on the impact of financial leverage on investment decisions of firms and its attempt to explore the impact of financial leverage on investment levels using firm-level panel data in Mauritius. The researcher found a negative relationship between leverage and investment for low growth firm; the econometric results reveal an insignificant relationship between the two variables for high growth firm.

### **Statement of the Problem**

Listed firms allow shareholders to participate in share ownership of these companies which increases their capital base. In return for the amount of money invested by shareholders, listed firms pay them dividends on a regular basis. It is in view of this relationship that the shareholder wealth maximization objective of the firm emanates. Corporate investment decisions guide this wealth maximization objective of the firm listed on NSE (Bodie, Kane & Marcus, 2013). It is then prudent to take a closer look at the factors that influence corporate investment decisions, since these decisions determine the profits or losses made by a firm. Njuguna, Namusonge and Kanali (2016) examined the determinants of investment intentions: an individual retail investor's perspective from Nairobi Securities Exchange and established that subjective investment knowledge, expected investment value, compatibility, perceived behavioral control had a positive and statistically significant effect on investment intentions of individual investors. While Nketiah (2017) used the Altman's model to analyze the investment decisions in general terms by predicting financial distress of firms. These studies looked at some of the factors affecting decision making for a specific investor thus creating a gap as none addressed the determinants on corporate investment decisions of firms listed at the Nairobi Securities Exchange (NSE). The current study therefore sought to fill the gap by specifically investigating the effect of financial leverage on corporate investment decisions of firms listed at the Nairobi Securities Exchange, Kenya.

### **Objectives of the Study**

To determine the effect of financial leverage on corporate investment decisions of firms listed at the Nairobi Securities Exchange, Kenya.

### **Research Hypotheses**

1.  $H_{01}$ : Financial leverage does not affect corporate investment decisions of firms listed at the Nairobi Securities Exchange, Kenya

## **LITERATURE REVIEW**

### **Theoretical Framework**

#### **Prospect Theory**

A vast majority of models assume that investors evaluate gambles according to the expected utility framework. Unfortunately, experimental work shows that people systematically violate the framework when choosing among risky gambles. Kahneman and Tversky (1979), advocate a new theory known as prospect theory. In this theory, people underweight outcomes that are merely probable in comparison with outcomes that are obtained with certainty – value is assigned to gains and losses rather than to final assets, probabilities are replaced by decision weights.

The theory predicts a distinctive fourfold pattern of risk attitudes; risk aversion for gains of moderate to high probability and losses of low probability and risk seeking for gains of low probability and losses of moderate to high probability. Losses and disadvantages have greater impact on preferences than gains and advantages (Kahneman & Tversky, 1979). Losses are weighted about twice as heavily as gains losing \$1 is about twice as painful as the pleasure of gaining \$1. This can also be expressed as the phenomena in which people will tend to gamble in losses i.e. investors will tend to hold on to losing positions in the hope that prices will eventually recover. Moreover, individuals and households use a set of cognitive operations to organize, evaluate and keep track of financial activities (Thaler, 1985). People tend to place their investments into arbitrarily separate mental compartments and react to the investment based on which compartment they are in. This is known as mental accounting. When people are offered a new gamble, they evaluate it in isolation, separately from their other risks. In other words, they act as if they get utility directly from the outcome of the gamble, even if the gamble is just one of many that determine their overall wealth risk. This contrasts with traditional specifications, in which the agent would only get utility from the outcome of the gamble indirectly via its contribution to his total wealth.

Regret has been found by psychologist to be one of the strongest motivations to make a change in something. Festinger, Rieken and Schachter (1956) say that when two simultaneously held cognitions are inconsistent, this will produce a state of cognitive dissonance. Because the experience of dissonance is unpleasant, the person will strive to reduce it by changing his beliefs. Regret is a human tendency to feel pain for having made errors. To avoid the pain of regret one may alter one's behavior in ways that are sometimes irrational. Regret theory may apparently explain the fact that investors defer selling stocks that have gone down in value and accelerate selling stocks that have gone up in value (Shefrin & Statman, 1985). The theory is relevant to the study as it explains how the top management teams of listed firms make decisions on whether to use debts, equities or both in their capital structures which brings about financial leverage that act as a determinant of corporate investment decisions.

#### **Trade-off Theory**

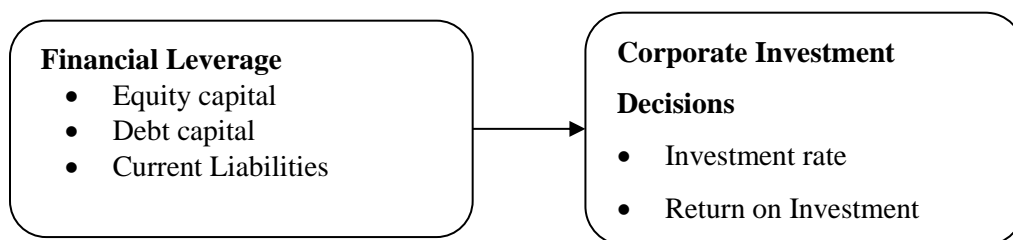
The Trade-off Theory is based on the premise that an optimal target capital structure will be identified by a firm which is believed to balance the benefits of the interest tax shield against the costs related to financial distress. While the interest tax shield is likely to enhance value of the firm, however, this will only happen to a certain level as increase in leverage increases the risk of default which is likely to result into financial distress costs. Therefore, the benefits of the interest tax shield will soon be eroded by the increase in financial distress and this reduces the value of the firm. An analysis of the link between financing of debts and value of the firm was conducted by Myers (1977). It was established that profits earned by firms are used in paying leverage

and this lowers leverage. It was further established that profitable business organizations use low leverage if Trade off Theory is in force.

In Trade-Off Theory, the larger firms are highly levered as they have large stability with cash flows that are less volatile and are likely to benefit from economies of scale that accrue after issue of securities at the market (Gaud, Jani, Hoesli & Bender, 2005). The size of the firm is associated with information asymmetry in the market in that for larger firms, more information is available about them at the market and this makes enables them easily access financial resources. Information asymmetries on the other hand increase the costs of small firm in accessing external sources of finances. According to Titman and Wessels (1988) however, a negative relationship exists between debt ratios and firm size. According to them, smaller firms have limited access to equity markets and as such tend to depend on loans from financial institutions to fund their operations.

The tradeoff theory would be useful in assessing the effects of financial leverage on corporate investment decision. The investors trade their decision-making freedom at a personal level for shares gained in a listed firm while exchanging it for financial gains. This theory helps explain the financial leverage level in an organization. As an organization takes on debt, it trades off its freedom to make decisions influencing its profitability with debt constraints. This also introduces the risk of bankruptcy in cases where the firm fails to repay the debt as scheduled.

### Conceptual Framework



**Figure 1.1: Conceptual Framework**

### Empirical Review

Financial leverage refers to the amount of debt in the capital structure of the business firm. Capital structure includes equity capital and debt capital. Generally, equity capital includes shareholder's fund and reserve of the firm. On the other hand, debt capital considers preference share capital and other non-current liabilities of the firm. Debt to equity ratio is used to analyze the capital structure of the firms. Here capital structure includes equity and debt capital (Greenbaum, Thakor & Boot, 2015).

Velnampy and Aloy (2012) stated that the term capital structure of an enterprise means combination of equity shares, preference shares and long-term debts. Most of the firms try to keep their capital structure to maximize their profitability and sustainability which means that much of the funds should be maintained in the form of equity and debt capital. Capital structure is generally long-term decision and the liquidity positions are related with every day operation. The decisions of the capital structure are vested with board of directors and top finance managers. According to Sharma, Mithas and Kankanhalli (2014) it is generally believed that the value of a firm is maximized when its cost of capital is minimized. The kind of combination of debt and equity that will minimize the firms cost of capital and hence maximizes the firm's profitability and market value is the optimal capital structure which it affects investment decision of investors.

Katie, Mika, Magda and Konstantinos (2012) conducted a study on financing and investment decisions in UK. Researchers found there is some evidence that companies have been raising bond finance because of a desire to restructure their balance sheets and in particular, to reduce their reliance on banks. To the extent that companies have diversified their sources of funds and reduced the cost of their debt, this may have strengthened their balance sheets and put them in a better position to increase investment in the future. But much of the evidence presented suggests that the pattern of weak investment in 2010 and 2011 at a time of strong corporate bond issuance reflects heterogeneity among companies, with those capital market access investing while those without not, such that overall aggregate investment remained weak. That might suggest that an improvement in the availability of external finance to companies without capital market access could provide support for UK business investment.

Jagongo and Mutswenje (2014) in the survey of the factors influencing investment decisions: the case of individual investors at the NSE. The study was conducted on the 42 investors out of 50 investors that constituted the sample size. To collect data the researcher used a structured questionnaire that was personally administered to the respondents. The questionnaire constituted 28 items. The respondents were the individual investors. In this study, data was analyzed using frequencies, mean scores, standard deviations, percentages, Friedman's test and Factor analysis techniques. The researcher confirmed that there seems to be a certain degree of correlation between the factors that behavioral finance theory and previous empirical evidence identify it as the average equity investor. The researcher found out that the most important factors that influence individual investment decisions were: reputation of the firm, firm's status in industry, expected corporate earnings, profit and condition of statement, past performance firms stock, price per share, feeling on the economy and expected dividends for investors. The findings from this research would provide an understanding of the various decisions to be made by investors based on the prevailing factors and the eventual outcomes for each decision and would identify the most influencing factors on the company's investors' behavior on how their future policies and strategies will be affected since investment decisions by the investors will determine the company's strategy to be applied.

Kimuyu and Omiti (2010) found that lack of working capital is the most important reason for business closure in Kenya. They recommended for businesses to seek affordable short-term bank financing tailor made to their ability to repay. They concluded that availability of external financing is crucial for business growth and ultimate profitability. On the other hand, according to Nyale (2010) carried out an investigative study on the relationship between leverage and investment decisions for companies quoted at the Nairobi Stock Exchange. The researcher noted that debt holders would often show unease when the companies they engaged in invested in activities outside of their norm, as they are not sure of the returns from their investment. Nyale (2010) argue that companies at times use diversification of their investment so as to protect themselves and their investments against poor returns. Diversification investment decision would be done through investing in new products, investments in totally new service lines and venturing into new geographical areas as leverage against risks and poor performance. The findings of the study indicated that about 36% of the listed companies engage in diversification investment decisions. It further found out that there is a very weak relationship between the levels of leverage of a company and how much money the company can commit to a diversification investment decision. This insinuates that companies view each diversification investment decision on their own merit and how much money is committed to an investment decision is not entirely dependent on the level of leverage of that company.

Mohun (2008) focused on the impact of financial leverage on investment decisions of firms and its attempt to explore the impact of financial leverage on investment levels using firm-level panel data in Mauritius. Mohun

expected to contribute to the existing literature by bringing evidence from a panel data set, which comprised 27 firms, all listed on the Stock Exchange of Mauritius (SEM), sampled over a 15 year-period (i.e. from 1990 to 2004). In addition, the study demarcated between two types of firms, namely: (i) high-growth firms; and (ii) low-growth firms. The results revealed a significant negative relationship between leverage and investment. More interestingly, while the study found a negative relationship between leverage and investment for low growth firm, our econometric results revealed an insignificant relationship between the two variables for high growth firm.

Muhammad, Amir and Hazoor (2016) investigated the impact of the financial leverage on the investment decisions of the listed companies in KSE-30 Index of Pakistan. It identified the most important factor that influences investment decision of the company and which causes the bankruptcy of Pakistani listed firms. Methodology: The study used descriptive statistics, correlation analysis and pooled ordinary least square regression model for the analysis of 30 (financial & non-financial) companies of Pakistan. The empirical findings of the study reported that the financial leverage has a negative and significant impact on the investment decisions. On policy Implications the outcomes of the study help the strategic management to make financing decisions about leverage whether to take long term debt or not.

Frank (2011) explained the link between leverage and investment decision for the Dutch AEX-listed firm of the Euronext Amsterdam. According to findings, leverage has a negative, but insignificant impact on investment for low-growth firms. However, for high-growth firms the effect is indeed significantly negative. This is an indication that the underinvestment and overinvestment problem are more severe for high-growth firms than for low-growth firms. This could mean that high-growth firms are more afraid to lose their financial flexibility, because these companies expect they will need more sources of funding in the nearby future. The second and more likely cause of this result is that managers of high-growth firms are too self-assured and greedy when they see that their firm is growing. They start to take risky decisions, like investing in negative net present value investment opportunities. Therefore, the disciplinary role of debt to undertake risky investments can be stronger.

Karanja (2014) assessed the effect of financial leverage on corporate investment of non-financial firms listed at the Nairobi securities exchange. The study was done over a period of five years (2009 - 2014). A casual research design was adopted for the study. The study made use of secondary data which was obtained from NSE library, CMA and firm's annual reports which are publicly available. Population consisted of 62 listed firms out of which, 45 companies were to be studied. The 17 financial: banks and insurance firms were not considered due to the regulatory in the sector. The study found that financial leverage has a significant negative effect on corporate investment. Liquidity also has a negative effect on investment.

Mwangi (2017) investigated on the effect of financial leverage on investment of non-financial firms listed at the Nairobi Securities Exchange. The study shows that investment is a vital economic activity in the corporate finance theory and the key to maintaining and increasing the capital stock and production capability of an organization. In general terms, investment is narrowly related to the intensity of economic activity and development. The findings revealed that the association linking debt ratio and investment is positive but insignificant and that the relation between profitability, sales growth and investment ratio was negative and insignificant. The findings further established that a negative and considerable relationship existed between liquidity and investment. The study concluded that investments by non-financial firms that are listed at the Nairobi Stock Exchange are not affected by financial leverage, sales growth and profitability. The study also concluded that liquidity significantly affects investments by non-financial firms listed at Nairobi Stock

Exchange. Therefore the management of non-financial firms should hold adequate level of financial leverage to ensure that they do not affect other functions of the firm and they should ensure that the firms are liquid enough to ensure that they can make investment decisions.

### **Investment Decisions**

According to Graham, Harvey and Puri (2015) individuals who were exposed to economics during their schooling may be more likely to have friends (perhaps their classmates) that invest in the stock market. Because of “peer effects” in investing, respondents exposed to these friends may themselves be more likely to invest in the stock market. Several studies have documented that “peer effects” can be pretty powerful determinants of portfolio choice (Sharma, et al., 2014).

Carr, Kolehmainen and Mitchell (2010) in strategic investment decision making practices; shares that the education level of peers does matter for stock ownership. Those who have friends that have a college degree are more likely to own stocks. Thus, there may be information provision and learning via social interaction. Newspaper readership has a positive impact on awareness, and its coefficient is always highly significant. Increasing readership raises the probability of stock awareness, mutual funds, and corporate bonds (Car et al., 2010). Further show that financial mistakes are prevalent among the young and elderly, who are among those displaying the lowest amount of financial knowledge.

Kevin and Tom (2015) investigated the firms’ investment decisions and interest rates in Australia. Firms typically evaluate investment opportunities by calculating expected rates of return and the payback period (the time taken to recoup the capital outlay). Liaison and survey evidence indicate that Australian firms tend to require expected returns on capital expenditure to exceed high ‘hurdle rates’ of return that are often well above the cost of capital and do not change very often. In addition, many firms require the investment outlay to be recouped within a few years, requiring even greater implied rates of return. As a consequence, the capital expenditure decisions of many Australian firms are not directly sensitive to changes in interest rates. Furthermore, although both the hurdle rate of return and the payback period offer an objective decision rule on which to base expenditure decisions, the overall decision process is often highly subjective, so that ‘animal spirits’ can play a significant role.

Merikas, Merikas, Vozikis and Prasad (2011) in the investigation on the economic factors and individual investor behavior: The case of the Greek stock exchange. The study adopted a modified questionnaire to analyze factors influencing Greek investor behavior on the Athens Stock Exchange. The results indicated that individuals base their stock purchase decisions on economic criteria combined with other diverse variables. The results also revealed that there is a certain degree of correlation between the factors that behavioral finance theory and previous empirical evidence identify as the influencing factors for the average equity investor, and the individual behavior of active investors in the Athens Stock Exchange (ASE) influencing by the overall trends prevailing at the time of the survey in the ASE.

Graham et al. (2015) noted that individuals who were exposed to economics during their schooling may be more likely to have friends (perhaps their classmates) that invest in the stock market. Because of “peer effects” in investing, respondents exposed to these friends may themselves be more likely to invest in the stock market. The expectation of the link between investment rate and cash flow is a positive sign; higher cash flow of firms will be associated with higher investment (Phan, 2013).

In the study titled towards a better understanding of capital investment decisions, Emmanuel, Harris and Komakech (2010) found that investment decisions should be affected by changes in risk levels. This study,

therefore, employs this variable in analysis of investment decision. Every business faces the same 5 key risks: Development risk (Can the original product/service idea actually be created?). Manufacturing risk ( If the product can be developed, can it actually be produced in appropriate volume?), Marketing Risk (If the product can be made, can it be sold effectively?), Financial Risk (If the product can be sold effectively, will the resulting company be profitable and can the profits actually be realized in a form that allows investors to receive cash) and Growth Risk (If the company can achieve operating profitability at one level, can profitability be maintained as the company grows and evolves?).

**RESEARCH DESIGN AND METHODOLOGY**

The study adopted a descriptive design. Descriptive design was used because it focuses on complex analysis to bring out the correlation of variables; as one variable affects changes in another. The target population for this study was 64 firms listed at the NSE between 2010 and year 2014. The sampling frame of the survey of the firms listed was the management staff. The study adopted Kothari (2004) to establish the sample size. This resulted into a sample size of 284 respondents. The study used both primary and secondary data. Questionnaires were used to collect primary data while data collection sheets helped in collection of secondary data. To check the validity and reliability of the questionnaires in gathering the data required for purpose of the study, pilot study was carried out. A pilot study was conducted using 10 respondents. Descriptive statistics such as, mean and frequencies were used to perform data analysis. The mean scores were used to rate the factors in order of their importance. SPSS was used to produce frequencies, descriptive and inferential statistics which were used to derive conclusions and generalizations regarding the population. The analysis of variance (ANOVA) was checked to reveal the overall model significance. Before conducting regression analysis, the researcher conducted Multicollinearity, Normality Test, Heteroscedasticity and Autocorrelation.

**RESEARCH FINDINGS AND DISCUSSIONS**

The study targeted 384 management staff from the 64 listed firms at the NSE. However, out the 384 questionnaires that were distributed out to these respondents, 288 of them were dully filled and returned to the researcher. This translated to a response rate of 75%. The response rate concurred with the stipulation of Mugenda (2008) noted that a response rate of 50% is adequate for analysis and reporting, a rate of 60% is generally good while a response rate of above 70% is excellent.

**Descriptive Findings**

As defined by Greenbaum, Thakor and Boot (2015), financial leverage refers to the amount of debt in the capital structure of the business firm. Debt to equity ratio is used to analyze the capital structure of the firms. Here capital structure includes equity and debt capital. This study examined how financial leverage affected corporate investment decisions among firms listed on NSE. This was achieved through questionnaire that contained questions structured on a Five-pointy Likert scale of 1-5 where 1 is strongly disagree 2 disagree 3 neutral 4 agree and 5 strongly agree. Respondents were then requested to indicate the extent of their agreement with each of these statements.

**Table 1.1: Financial Leverage**

Statement	Mean	Std. Dev
The company prefers loan to equity	3.47	.708
The company has a huge burden of current liabilities as compared to current assets	3.57	1.157



Statement	Mean	Std. Dev
The burden of cost of equity is more than the burden of cost of debentures on profit and loss account	3.73	1.014
The company keeps its leverage level under control	3.92	1.027
There are clear working capital management guidelines by the company to avoid bankruptcy	4.07	.972
<b>Mean of means</b>	<b>3.75</b>	<b>0.975</b>

From the findings in Table 1.1, the firms preferred loan to equity, with a mean of 3.47 and standard deviation of 0.708. The finding is in agreement with Table 4.6 where it was seen that debts were used in capital structures of the studied firms. Use of loans in the capital structure introduces leverage which affects corporate investment decisions as noted in trade off theory.

The firms had a huge burden of current liabilities as compared to current assets, with a mean of 3.57 and standard deviation of 1.157. Current liabilities and current assets are important components of working capital of the company. They represent liquidity which represents the ability of a firm to meet its current financial obligations as and when they fall due. The mean of 3.5 shows that respondents slightly agreed on this statement, which could imply that some significant number of companies suffered from liquidity problems.

The burden of cost of equity was more than the burden of cost of debentures on profit and loss account, with a mean of 3.73 and standard deviation of 1.014. The firm kept its leverage level under control; with a mean of 3.92 and standard deviation of 1.027. There were clear working capital management guidelines by the company to avoid bankruptcy; the mean was 4.07 with standard deviation of 0.972. The finding concurs with Mwangi (2017) who averred that it is generally believed that the value of a firm is maximized when its cost of capital is minimized.

The average mean on statements was 3.75 an indication that respondents agreed that financial leverage affected corporate investment decisions. In China, findings of Li et al. (2010) mixed significantly the relationship between debt financing and corporate investment decisions. In India, Franklin and Muthusamy (2011) revealed a significant positive relationship between leverage and investment, while a negative relationship between leverage investment for medium firms and positive relationship between leverage and investment in large firms are identified. In Pakistan, Muhammad, Amir and Hazoor (2016) investigated the impact of the financial leverage on the investment decisions of the listed companies in KSE-30 Index of Pakistan and reported that the financial leverage has a negative and significant impact on the investment decisions.

### Corporate Investment Decisions

Below are statements on investment decision of the firm that respondents were requested to indicate the extent of their agreement on each using a Likert scale of 1-5 where 1 is strongly disagree 2 disagree 3 neutral 4 agree and 5 strongly agree.

**Table 1.2: Corporate Investment Decisions**

Statement	Mean	Std. Dev
There has been an increase in EPS in the company for the last 5 years	3.72	.885
There has been an increase in ROE in the company for the last 5 years	3.79	.953
There has been an increase in ROA in the company for the last 5 years	3.89	.729
There has been an increase in profits in the company for the last 5 years	3.94	.924
There has been an increase in return in investments in the company for the last 5 years	4.19	1.020
<b>Average</b>	<b>3.90</b>	<b>0.902</b>

The findings of investment decisions are indicated in Table 4.11. From the findings, there has been an increase in EPS in the company for the last 5 years, with a mean of 3.72 and standard deviation of 0.885. There has been an increase in ROE in the company for the last 5 years; the mean was 3.79 with standard deviation of 0.953. On whether there has been an increase in ROA in the company for the last 5 years, with a mean of 3.89 and standard deviation of 0.729. There has been an increase in profits in the company for the last 5 years; with a mean of 3.94 and standard deviation of 0.924. There has been an increase in return in investments in the company for the last 5 years, with a mean of 4.19 and standard deviation of 1.020.

The implies that return on investments was strongly agreed by the respondents as the factor they most considered when making corporate investment decisions, the concurs with the findings by Kevin and Tom (2015) who revealed that firms make decisions by evaluating investment opportunities through calculating expected rates of return and the payback period. The Australian firms require expected returns on capital expenditure to exceed the rate of return that are often well above the cost of capital and do not change very often. In addition, many firms require the investment outlay to be recouped within a few years, requiring even greater implied rates of return. As a consequence, the capital expenditure decisions of many Australian firms are not directly sensitive to changes in interest rates.

The mean of the investment decisions for the company was 3.90 and the standard deviation was 0.902. The respondents agreed that investment decisions affected their corporate investment decisions of the firms listed in the NSE. This finding is similar to the study by Merikas, et al, (2011) which stated that individual investors base their stock purchase decisions on economic criteria combined with other diverse variables such as return on assets or investments and overall prevailing stock exchange trends.

**Regression Results and Hypothesis Testing**

The researcher tested for the hypothesis using simple linear regression analysis. The study used F-Tests, Analysis of Variance (ANOVA) to test the level of significance of the variables on the dependent variable at 95% level of confidence (p=0.05). According to Moriya (2008) F-Tests are the most commonly used to test confidence intervals and hypotheses. If the significance level is less than 0.05 (p<0.05) then, the correlation is significant and the two variables are linearly related. If the significance level is more than 0.05 (p>0.05) then, the correlation is not significant and the two variables are not linearly related when testing the null hypothesis and therefore a correlation model does not exist between independent variable and dependent variable. The study adopted the following null hypothesis; H<sub>01</sub>: Financial leverage does not affect corporate investment decisions of firms listed at the NSE.

**Table 1.3: Hypothesis on Financial Leverage**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.648	.297		12.262	.000
Cash flow	.047	.016	.954	2.938	.000
R=.382 <sup>a</sup>	R <sup>2</sup> =.146	Adj. R <sup>2</sup> =.143	Fcalculated=48.8233	P=0.000	

The study established that financial leverage had p value  $p=0.000 < 0.05$ ; an indication that it significantly affected investment decisions among firms listed at NSE. Based on the finding, the study rejects the null hypothesis and concludes that financial leverage affects corporate investment decisions of firms listed at the NSE. Inconsistent with this finding is the Modigliani and Miller theorem (1958) who postulated that there has been no relation between the financial structure and financial policy for real investment decisions under certain conditions.

The coefficient of determination R square was 0.143, an indication that 14.3% change in corporate investment decision is explained by financial leverage. In India, Franklin and Muthusamy (2011) presented a paper analyzing the impact of leverage on firm’s investment decision of Indian pharmaceutical companies during the period from 1998 to 2009. The results revealed a significant positive relationship between leverage and investment, while a negative relationship between leverage investment for medium firms and positive relationship between leverage and investment in large firms are identified. Similarly, in Pakistan, Muhammad, Amir and Hazoor (2016) investigated the impact of the financial leverage on the investment decisions of the listed companies in KSE-30 Index of Pakistan. It identifies the most important factor that influences investment decision of the company and which causes the bankruptcy of Pakistani listed firms. The empirical findings of the study reported that the financial leverage has a negative and significant impact on the investment decisions.

Financial leverage affects corporate investment decisions of firms listed at the NSE. The finding is consistent with Franklin and Muthusamy (2011) who established that a significant positive relationship exists between leverage and investment, while a negative relationship exists between leverage investment for medium firms and positive relationship exist between leverage and investment in large firms. The study also established that there were clear working capital management guidelines by the company to avoid bankruptcy.

**Correlation Results**

The researcher conducted Pearson correlation analysis to determine the direction, strength and nature of relationship between the variables of the study. Pearson’s Product Moment Correlation (r) is a measure of the linear dependence (correlation) between two variables and can give a positive or negative value of their relationship (Huber, 2004).

**Table 1.4: Correlation Analysis**

Indicators	Investment Decisions	Financial Leverage
Investment Decisions	Pearson Correlation	1
	Sig. (2-tailed)	
	N	288

Financial Leverage	Pearson Correlation	.536	1
	Sig. (2-tailed)	.000	
	N	288	288

In the interpretation of results for the linear relationships in the study, Shirley et al., (2005) indicates that for a weak correlation, “r” ranges from  $\pm 0.10$  to  $\pm 0.29$ ; in a moderate correlation, “r” ranges between  $\pm 0.30$  and  $\pm 0.49$ ; while in a strong correlation, “r” ranges from  $\pm 0.5$  and  $\pm 0.9$ . The positive or negative sign points to the direction of the relationship. From the findings in Table 1.4, in view of financial leverage, the value of Pearson correlation coefficient was 0.536 with p value  $p=0.000 < 0.05$ . Therefore, there is strong positive and statistically significant relationship between financial leverage and corporate investment decisions.

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### Summary of the Findings

The purpose of the study was to determine the effect of financial leverage on corporate investment decisions of firms listed at the NSE. To achieve this objective, primary data was collected using structured questionnaires. Questionnaires were structured on a Five-point Likert scale of 1-5, 1 was strongly disagree 2 disagree 3 neutral 4 agree and 5 strongly agree. The collected data was coded into SPSS software version 23. The analysis was done using descriptive and inferential statistics. Descriptive statistics included use of Means and standard deviations while correlation and regression analysis were used as inferential statistics to help in drawing relevant inferences about the population.

From the findings, there was clear working capital management guidelines by the company to avoid bankruptcy, as Afrif and Padachi (2016) mentioned utilizing internal sources of finances as opposed to external sources may solve the bankruptcy issue. The study established that the company kept its leverage level under control. The findings of the study indicated that the burden of cost of equity was more than the burden of cost of debentures on the profit and loss account. These findings concur with Phan (2013) who examined determinants of corporate investment decisions in Vietnam and established that an increase in leverage may be associated with the increased cyclical variability of investment and employment. From the findings of regression analysis, financial leverage had significant influence on corporate investment decisions.

### Conclusions

The study concludes that financial leverage affects corporate investment decisions of firms listed at the NSE. In having clear working capital management guidelines, companies find ways to reduce the debt levels within their capital structure and hence avoid chances of going bankrupt. The study further concludes that investors considered the fact that the company they choose to invest in had its financial leverage level under control so as not to burden the cost of equity and have huge burden of current liabilities when compared to current assets.

The study also concludes that a significant positive relationship exists between leverage and investment, for medium sized firms, there is a negative relationship between leverage investment for medium firms and positive relationship between leverage and investment in large firms. This is due to the fact that large firms have more financial options for leveraging when compared with medium and smaller firms. The study also concludes that companies incur debts while expanding their business operations and market reach and investors must check the liabilities the firm has incurred while making their investment decisions.

## Recommendations

The study also recommends that the management of NSE and CMA in Kenya should work hand in hand to ensure that financial experts and analysts are in place to guide investors in decision making process. The management of listed firms should also make investment decisions based on the level of debts and equities in their capital structures. There is a need to strike a balance between the debts and equities to reduce risks of bankruptcy associated with debts in the capital structure of listed firms in Kenya.

## Areas for Further Research

The study looked at the listed firms at the Nairobi Securities Exchange (NSE), what are the considerations that people have on investing in non-listed firms, family business ventures and sole proprietorship type of enterprises. This study is on corporates and their decision-making process on investment options, this study recommends future researchers to look at the factors that affect individual investors during the decision-making process. This is because NSE is open to individuals to also investment in different companies.

This study was also broad by looking at all the 64 listed firms at the NSE; future studies can cover listed firms but in a specific sector like financials or agriculture. Such that the findings are specific to a single sector of the economy and have in-depth information for future investors in that sector.

This study examined the 64 listed companies in Kenya and the four main variables that affected their investment decision making process. The study was conducted on the listed firms in Kenya, the study findings can be verified by future researchers conducting other studies while looking at securities exchanges in other countries like Uganda or/and Rwanda. Similarly, a comparative study can look at Nairobi Securities Exchange (NSE) and another country's security exchange on the factors affecting the corporate investment decisions.

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