# EFFECTS OF LEASE FINANCING ON THE FINANCIAL PERFORMANCE OF COMPANIES LISTED ON NAIROBI SECURITIES EXCHANGE

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# **DECLARATION**

I, the undersigned, declare that this is my own original work and has never been presented in any other University for an award of any academic satisfaction.
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I give it to you God for your Immeasurable blessings.

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May the Almighty God bless you all.

# **DEDICATION**

# TO MY MUM

For raising me to believe that anything is possible

# TO MY BROTHERS AND SISTERS,

For making everything possible

# TO MY FRIENDS,

Special thanks to all my friends for being there for me throughout the entire master program.

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#### LIST OF ABBREVIATIONS

**AIMS**: Alternative Investment Market Segment

**ANOVA**: Analysis of Variance

**CEO**: Chief Executive Officer

**CMA**: Capital Market Authority

**FIMS**: Fixed Income Market Segment

**GDP**: Gross Domestic Products

**IAS**: International Accounting Standards

**IFC**: International Finance Corporation

MIMS: Main Investment Segment

**NPV**: Net Present Value

**NSE**: Nairobi Securities Exchange

**OLS**: Ordinary Least Square

**ROA**: Return on Assets

SPSS: Statistical Package for Social Science

UK: United Kingdom

**US**: United States

#### **ABSTRACT**

The benefits of leasing which include the importance in accessing finance can be described from the choice of the company of leasing in relation to borrowing as well as obtaining the assets. Lease funding as portion of the financing decision of a firm is one of the substitutes to straight-up buying if a company is seeking various ways to get essential business equipment as well as supplies that have the chance of risking the company's financial flow as well as stock pile. Leasing as a source of finance has proven to be suitable for developing private subdivision in evolution and in low earning area like sub-Saharan Africa. Leasing is considered to be the interesting funding tool for lessors for the reason that it not only permits them evade the normal credit dangers then also to permit the possessions as well as price dangers complicated in wealth to the lessee. The chief aim of the research was to regulate the noteworthy effects of lease funding on the monetary act of corporations registered at NSE. The research assumed descriptive study plan in defining the noteworthy effects of lease financing on performance in financial perspective. The study population consisted all the 65 registered companies at NSE. All firms listed at NSE had not reported use of lease, but only 33 firms which had reported use of lease financing and their secondary data for the period between the year 2011 -2015 was obtained from annual financial reports of the firms. The gathered secondary statistics from the annual reports and financial statements was evaluated using Statistical Package for Social Science version 20. A reversion examination was carried out on the data set to regulate the significant effect of lease business on the ROA (measure of financial performance) for firms listed at NSE. The results from regression analysis showed, lease financing and liquidity having positive effects on ROA whereas size and leverage had negative effects on ROA.

#### **CHAPTER ONE: INTRODUCTION**

#### 1.1 Background of the Research

Leasing is a vital, with economic benefits, and broadly used basis of funding. It enables units from start-ups, multinationals to public institutions to obtain the obligation to use possessions, equipment as well as plants minus making big original cash expenditures. Companies have many machineries as well as equipment to acquire. This equipment and machineries might not be actually essential to be purchased but rent to have sufficient wealth for their actions. According to Osaze (1993) leasing is considered to be an agreement between the proprietors of an asset, the minor as well as the potential user of that asset, the lessee.

The leasing decisions concerns whether the firm should lease equipment, or borrows money and buy the equipment. Over the centuries, the idea of leasing is a component of thoughtful decision for corporate organizations globally due to the economic benefits attached to it. Lease funding is considered to be one of the options to straight-up buying if a company is looking for the means to get essential corporate equipment in addition to supplies that have the likelihood of jeopardizing the business's financial flow as well as stockpile. Kenya has recently seen an enormous growth in the leasing of assets like cars and trucks, computers, machinery, manufacturing plants and agricultural land in addition to the traditional common leases of houses, office space and automobiles (Ombija, 2007).

Leasing, according to Mehran and Taggart (1999), is part of financing contract whose aim is to select a financing option that will optimize on risk and return. Leasing is mentioned as asset built funding (Burgress, 2002). The leasing decisions concerns whether the firm should lease equipment, or borrows money and buy the equipment.

Leasing is most of the time seen as supernumerary for short-term, medium to long-term credit, but the response to the query if leasing as well as debit are alternates or supplements is not small and thus, it has in monetary review not occasioned in a strong deduction (Elgers and Clark, 2010).

# 1.1.1 Lease Financing

Leasing has proven to be an suitable funding basis offering economic benefits for the developing private segment in conversion and in low returns areas, and developing regions such as sub-Saharan Africa (Fletcher et al.,). According to Osaze (1993) leasing is an agreement between the proprietor of an asset, and the potential customer of the asset, who is the lessee, providing occupant possession and use of asset on payment of rentals over a certain determined time. Usually, most/all lease arrangements fall into one of these types of lease financing: a sale and lease back arrangement, leveraged leasing and direct leasing. Leases are also classified as operating or finance also known as the capital tenancies.

Leasing is important in accessing finance both in emerging and developed economies. Currently, leasing provides more finance worldwide than commercial papers, mediumterm notes, Euro-notes, corporate bonds, or even international equities (Euromoney 2006). In developed economies, leasing as a source of finance is used to fund about a one

third of private business. In the emerging economies on the other hand, leasing segment as a way of bringing finance, is used to increase the range of monetary goods in the market and provide a route for get into money to companies that or else would not have it, thus promoting, economic growth, job creation and domestic production. Overall, a healthy leasing industry with significant economic benefits facilitates economic development which on the other hand facilitates growth of GDP through increased financing flows to the productive sector of the economy.

#### 1.1.2 Financial Performance

Financial performance is firm's ability to generate resources, from its daily procedures, for a certain time period. Financial performance may also refer to the firm's ability to make good use of their resources in an effective and efficient manner for achievement of the firm's objectives and goals (Asimakopoulos, et al., 2009). According to Vekataran and Varadarajan (2011) financial performance is the firm's ability to efficiently operate, be more profitable, to grow and survive for a long period of time. All organizations strive to utilize its resources effectively to achieve a high performance level especially in financial terms. Thus, financial performance is the outcome of any of many different activities undertaken by an organization.

Financial performance refers to the procedure of measuring in monetary terms the outcomes of a company's strategies as well as actions. Van Horn (2005) defined monetary performance as a personal degree in terms of how well firms can be able to use their assets from their main approach of businesses and produce incomes.

Monetary performance therefore measures a company's earnings, incomes, appreciation in value which is demonstrated by the increase in the unit's share charge (Asimakopoulos, et al., 2009). Measures of monetary act can be categorized into two classes, that is, accounting revenues as well as investor earnings. According to Vekataran and Varadarajan (2011) monetary performance is the appropriate way of any policy. In analogy with all these definitions of performance, the monetary performance of a company can therefore be described as the result of a company's plan or an assessment of how fit a company has or is succeeding in reaching its aims.

Monetary performance as a personal measure in terms of how fit companies can be able to use their assets from their main mode of businesses and produce proceeds is the chief features of each company's/organization's.

# 1.1.3 Lease Financing and Financial Performance

The significant idea of the monetary market is the lease which is the contract where one party gets a long-term leasing contract (lessee) and other party (lessor) receives a protected long-term debt, guaranteed of fixed outlays for a stated period. Equipment funding gives substitute source of capital as well as cash in the acquirement of business acute assets and equipment. Equipment funding allows companies to acquire kit at a fixed rate, for a fixed period of time, without having to procure the equipment from money thus not affecting the working capital (Myers and Majluf, 2002). This is because leasing improves performance in financial perspective by reducing leverage level which improves the firm's working capital (Tarus, 1997).

Non-cancellable long-term leases usually play a crucial role in mitigation of the firm's underinvestment which arises due to debt overhang (Myers, 1977). Underinvestment issue is mitigated because of legal standing of leases to all outstanding fixed claims. The main complication to actual domestic investment, economic development, ultimately poverty reduction and expansion is admittance to inexpensive and consistent funding and credit (Adam & Hardwick, 1998; Beattie et al, 1998; Brealey& Myers, 2003). By segregating claim on new project's cash flows, leasing, unlike debt, limits wealth transfer from stockholders to existing bondholders. This in turn enables firms to undertake positive NPV projects which are otherwise foregone with unsecured debt financing.

According to Eisfeldt & Rampini (2009) leasing enhances debt capacity of constrained firms, and therefore firms lease to preserve liquidity which improves their working capital. Therefore, leasing is no longer just a financing tool, but it can be used by constrained firms to increase investment input capital and expand production functions. Unlike lessees, owners of real assets, who retain the residual interest, take advantages of rises in collateralized asset values to increase investment in the production capacity.

# 1.1.4 Nairobi Securities Exchange

NSE was constituted in the year 1954 (operating under the name the Nairobi Stock Exchange) as a volunteer company of securities broker listed under the public Act. However, the Nairobi Securities Exchange (NSE) has an antiquity that can be sketched to the 1920's when it began dealing with shares when Kenya was under colony of Britain, and share transaction by then was conducted in an informal market. At the time, Africans together with the Asians were not permitted and could not trade in shares. Therefore,

such dealing in shares was confined to local European public till freedom in 1963 (NSE, 2014).

NSE is a sole exchange that presently exists in Kenya with 65 listed companies in 2016. It is also among the most vibrant in Africa and the leading in Eastern Africa. However, N.S.E is relatively a small market as compared to other exchanges in United States and United Kingdom that have more than 5000 and 2000 companies listed respectively. NSE was initially registered as a private company in the year 1991 by shares with the floorbased open outcry system in place, it was later replaced by the central depository system that was commissioned in 2004.

According to the NSE website, its market capitalization has tremendously improved hitting Kshs. 1930.58 billion as of September 2016. Turnover at the NSE increased phenomenally from Kshs. 2.90 billion in the year 2002 to Kshs. 95 billion in the year 2006. The number of CDSC accounts that were opened increased from 80,000 in the year 2005 to over 1,000,000 investors to date (www.nse.co.ke).

There exist 2 indices that are used in measurement of the performance at NSE. NSE 20 share index is a yardstick that is used to track the best performing 20 companies in Kenya that are listed at the NSE. Although it is widely watched and cited because it is comprised of select 20 large companies, it cannot gauge fluctuations in smaller companies. The Nairobi Securities Exchange all share index (NASI) that is usually used to measure Market Capitalization other than the movements in price of few selected counters. NSE has experienced considerable growth with more companies listing oversubscribed Initial

Public Offerings. NSE is therefore the best performing top ranked equity market in Africa (Olweny, 2012).

Firms listed at NSE are classified into different sectors such as; Agricultural, Banking, insurance, investment and investment services, Allied and Construction, Commercial and service, Energy and Petroleum, Automobiles and Accessories, Manufacturing, Telecommunication and Technology and Real Estate Sector (NSE, 2016). As at December 2015, NSE had 65 listed companies in the different sectors. Financial firms at the NSE comprise of commercial banks and insurance firms, which provide financial intermediation functions while the Non-financial firms are those companies that are not involved in the provision of financial intermediary services. Financial services companies are excluded since they are the companies that provide leverage and other debt services to the non-financial firms. The NSE is at the time one of the most promising and attractive markets in Africa by which the bulwark of investors wants to invest and benefit more especially due to the high growth as well as the more promising Kenyan economic outlook (Muiruri, 2014).

The concept of stock split for firms listed at the NSE was approved by CMA in June 2004 and entrenched in NSE listing manual. Among the reasons for pushing for its adoption was as a result of stock boom in 2004 when stock prices rose by 100% (Kirui, Wawire & Onono, 2014). However, stock splits events are relatively new in the NSE and there are few studies in the Kenyan stock market done on stock splits (Koech, 2013). As such, Nkonge (2010) examined the effects of stock splits on securities returns of firms listed in NSE and concluded that stock split signals good information as returns are observed to increase significantly around the time of stock split announcement. Gachuhi

(2013) also examined how risk factors associated with investing in stocks are affected by stock splits and concluded that there occurred a temporary increase in post-split return volatility following a stock split at the NSE.

#### 1.2 Research Problem

Access to finance remains a critical factor to any corporate firm. Leasing is viewed as one of the sources of finance option available to firms and organizations both in emerging and developed financial markets. The benefits (economic) of leasing can be derivative from the company's decision of leasing relative to borrowing and obtaining the asset. The arguments advanced on the significant impacts of lease on the monetary performance of the firm as opposed to purchase of assets includes tax differential effects, Miller and Upton (1976); and Subrahmanyam (1987), debt substitutability, Ang and Peterson (1984), agency costs and free cash flows, Smith and Warner (1979). According to, Mehran and Taggart (1999), leasing is part of financing contract whose aim is to select a financing option that will optimize on risk and return. In pecking order theory of capital structure, leasing has first priority in external financing hence the need to study it. (Marston & Harris, 1988; Krishnan & Moyer, 1994).

The question of how lease financing affects monetary performance of a company is significant to unlocking the potential of the leasing industry in Kenya. This is because the leasing industry in Kenya has experienced phenomenal growth since 2001, growing from Ksh 10 billion in 2001 to Ksh 25 billion in 2007 driven by the corporate sector (Leasing Association of Kenya, 2007). According to Barclay (2006), evidence (empirical) indicates that in every 10 percent growth in leasing, it leads to one percent growth in GDP. Furthermore, if leasing transactions increases above 1.8 of GDP, there is a

reduction in unemployment rate to below 10 percent, Hence, the need to identify the effects of lease financing and enhance factors behind the growth in leasing. As noted by, Adams and Hardwick (1998), given the financial leasing large scale in terms of corporate leasing worldwide and indeed in Kenya, what effects leasing decisions has on the financial performance is an empirical question of importance that needs to be answered.

According to Yan (2002) utilizing leasing conserves cash and preserves working capital in firms. Leasing option can be looked at as substitute for debt finance option because it reduces leverage through debt capacity reduction. However, given the fact that lessors have principal right on the assets rented, rental is expected to be beneficial for monetarily upset companies that can't fulfill the requirements for getting bank loans. While several studies have been done in developed markets (Meyer, 1977; Stulz and Johnson, 1985; Bootle, 2002; Graham et al., 1998; Ezzell and Vora, 2001; Robicheaux et al., 2008; Yan, 2002; Ushilova and Schieurann, 2011, Lasfer and Levis, 1998 Barclay and Smith, 1998;

Luckreuth-rovers, 2006 among others) to determine effects of tenancy as a basis of money on the monetary performance of the firm, little has been done for developing markets like Kenya. Further, these studies have provided mixed results and hence cannot be generalized to Kenya. To determine significant effects of lease financing on quoted firms' performance in financial perspective of the publically quoted firms, little has been done for developing markets like Kenya. Muumbi (2014) recognized that there is a significant positive connection between lease financing and ROA (measure of financial performance). Munene (2014) established that leasing had a negative but insignificant effect on Return on Assets. Kibuu (2015) established that there is an insignificant positive relationship between lease financing and ROA. Therefore, differences between these

findings motivate the research to pursue and determine significant effects of lease funding on the monetary performance of corporations registered at NSE. The purpose of this study is geared to answer the question; what are the significant effects of lease as source money on monetary performance of firms listed at NSE?

# 1.3 Research Objectives

The objective of this study was to determine effects of lease financing on monetary performance of corporations registered at NSE.

#### 1.4 Value of the Research

The study seeks to contribute to the empirical and theoretic reviews on leasing versus borrowing and purchase choices, inspecting a variety of monetary, accounting, taxes, firm-specific as well as asset-specific features affecting leasing choices. It contributes to comprehending of lease funding by offering an inclusive up-to-date proof of leasing choices across the Kenya publicly quoted companies.

This research study will be of great significance to the management of firms in Kenya willing to adopt lease financing, as it will provide information on how tax shield, resources and access to information influence lease financing and what effects it has on performance.

The empirical results generated from this study will provide decision makers in public and private sectors with quantitative measures to evaluate the effects of use of lease financing on organizations in Kenya. This in turn, would allow managers, owners, and outside investors to be better informed about the impacts of use of lease funding on the organizations performance.

To the Kenyan government and policymakers, this study will provide information that can be used to form policies that can govern the use of lease financing in companies in Kenya. Policymakers can also use the findings of this study to form policies that can protect the investors and stakeholders in companies using lease financing.

#### **CHAPTER TWO: LITERATURE REVIEW**

# 2.1 Introduction

This section emphasizes on theoretic literature, general and specific literature on leasing. It outlines and discusses theories related to leasing and empirical evidence of factors which influence the use of lease as a financing mean.

#### 2.2 Theoretical Review

This section introduces the theoretical review based on Modigliani-Miller framework, managerial risk aversion, financial contracting theory and agency costs theory and the drivers of leasing decision by companies.

# 2.2.1 Modiglian-Miller Proposition

The Modigliani–Miller theorem creates a base for contemporary rational on investment structure. The rudimentary proposition states that, under a particular market price process, in the non existence of taxes, insolvency charges, activity costs, as well as unequal information, and in a well-organized market, the value of a company is natural by how that company is financed. It doesn't matter if the company's capital is raised by issuing stock which will finance capital or investment type programs separately from current expenditures. Therefore, capital projects must compete for funds with current expenditures. Therefore, capital projects must compete for funds with current expenditures. Therefore, capital projects must compete for funds with current spending projects such as operations, maintenance, and research and development. When an agency decides to purchase a capital asset, it will incur substantial outlays in the year of the acquisition. Because of the spending constraints, the capital outlay will affect the

ability of the agency to obtain and expend funds for other worthwhile projects competing for those limited funds.

Subsequent to the capital structure irrelevance proposition, literature on subject of capital structure theory has been prolonged by numerous empirical and theoretical contributions. Some of the works have relaxed the Modigliani and Miller assumptions, for example, by considering: corporate, personal taxes and bankruptcy costs (Modigliani & Miller, 1963; Stiglitz, 1969; Miller, 1977; Titman, 1984), aspects of information asymmetry (Myers and Majluf, 1984; Myers, 1984), and Agency costs (Jensen and Meckling, 1976; Myers, 1977).

Smith and Wakeman (1985) argued that, as a special case of Modigliani and Miller irrelevance proposition, in case of competitive markets with no taxes and no contracting costs, the net cash flow from the usage of an asset is sovereign of the set of monetary agreements stipulating the distribution of human rights to use the asset. However, in actual financial markets, both the lessee and lessor firms face a variety of market imperfections, which include: agency costs, insolvency costs, taxes, incomplete contracting, and costly external funding and operation costs.

#### 2.2.2 Managerial Risk Aversion

Flath (1980) and Smith & Wakeman (1985) argue that possession structure is always expected to affect lease asset decision. A high level of lease financing is usually associated with high levels of managerial ownership. Flath (1980) argues that in mostly closely detained lessee firms, shire is likely as possession of capital assets makes decrease of danger through divergence more difficult and leasing mitigates this concern

by allocating usage rights of underlying asset to lessee whilst leaving ownership rights with lessor.

Leasing reduces wealth concentration thereby facilitating a more efficient distribution of risk attitude. This is done by shifting ownership risk from lessees who are risk-averse to lessors who are less risk-averse. Mehran, Taggart, and Yermack (1999) provide empirical evidence that CEO stock ownership, proxied by a portion of shared shares owned by company's CEO, has a positive significant effect on lease financing. Mehran et al. (1999) affirms that when company's CEO's has a greater stake possession, his /her interests are diligently aligned with stockholders. Therefore, CEOs with a great possession of a company's equity is likely to use leasing in order to reduce experience to technological uselessness as well as other asset-specific dangers.

# 2.2.3 Monetary Contracting Concept

Financial constricting is the philosophy of what classes of contracts are prepared between investors and those who need funding. Also it factors in company characteristics and how they affect contracting costs and choice of leasing as a financing vehicle. The theory starts with Modigliani-Miller theorem that an ideal environment firms are indifferent of the sources of finance.

Traditionally, financial leasing theory has focused on the difference tax position of the lessor and the lessee as the major cogent for lease choice. The important argument is that, if a company is not in a total tax-paying place buying as well as disparaging an asset may be expensive since it can use devaluation tax grant (Imhoff, Robert & David, 2004). However, by hiring the asset, the lesser will have right to the tax allowances, as well as

the tax welfares could be transported ultimately to the lessee through lower lease payments.

There has been growing trend to observe the leasing in a wider context of monetary contracting. Whereas not denying possible significance of taxes as well as significance between debt and leasing, new review has put superior stress on the relative capabilities of dissimilar category of monetary contracts to control costs of agency.

Monetary constricting philosophy proposes that firm characteristics like business danger as well as the nature of the investment prospect must affect constricting expenses and thus the choice to agreement rather than to buy asset.

# 2.2.4 Agency Cost Theory

The theory of agency exists when the principle who cannot manage his business on his/her own delegates the authority to an agent (Stulz and Johnson (1985). The problem with agency arises immediately when the desires and the goals a principal and the agent conflict. It is very tough and difficult or rather expensive for a principal to always monitor the work of his/her agent to ensure that the agent works and makes some decisions on the best interest of the principal. Thus, the theory of agency is help in solving the principle and the agent issues with an aim of ensuring a better relationship between them (Smith and Warner (1979). This theory is based on the notion that the interests of shareholders and the managers are not aligned in a perfect away to enable them work for a common goal which is achieving the organizational set goals and objectives.

The theory of Agency suggests that agents who in this case are the managers prefers to have a high level of cash flow even if there exists no profitable investment opportunity so that the funds can be used for managers own benefits other than for enhancing or increasing the firms value (Smith and Warner (1979). The Jensen and Meckling (1976) agency theory explains that decisions on capital structure must aim at reducing the cost related to agency by reducing equity in capital structure. This is done be increasing the debt financing hence increasing the market value of the firm as well as reducing the conflicts that may exist between managers of a firm and shareholders.

The main theoretic clarification for connection between possession structure as well as effectiveness is constructed on agency concept, first formalized by (Jensen & Meckling, 1976). Agency conflicts can arise between shareholders as well as bondholders and/or between directors as well as stockholders and can cause asset replacement and underinvestment. Smith & Warner (1979) affirms that non-cancellable long-term leases can help in mitigation of asset substitution problem because non-cancellable lease commits lessee to use leased asset over a life of a lease contract (Myers, 1977).

# 2.3 Factors Determining Financial Performance of registered Firms

This section aim to assess the factors determining financial performance based on lease financing, management efficiency, size of the company, liquidity, leverage and external/macroeconomic factors.

# 2.3.1 Lease Financing

Performance of firms generally construed to be of vital significance for savers, shareholders as well as economy at large. Lease financing affects the financial performance of firms. Leasing as a source of finance is a striking option for lessors since it permits them to evade the normal credit dangers and also to license the assets and price dangers convoluted in capital properties on to the lessee. The reasons why the parties opt for leasing are not limited to purely financing and risk aspects, however; they also take organizational and marketing aspects into account (Kyereboah-Coleman, 2007).

# 2.3.2 Management Efficiency

Institutions are run by individuals whose decision bears long lasting consequences on the financial health of the institutions. Measuring this variable is a subjective process which varies from institution to institution. Some of the parameters include sales growth, earning growth, the quality of the assets held, levels of expenses incurred to produce certain level of output. Operating profit to income is one of the ratios that can be used to measure efficiency of management (Nazir, 2010). The higher this ratio, the better.

# 2.3.3 Company Size

The size of the company determines the level of economics of scale enjoyed by a firm. When a firm becomes larger, it enjoys economics to scale and the average production cost is lower and operational activities are more efficient. Hence, larger firms generate larger returns on assets. However, larger firms can be less efficient if the top management lose their control over strategic and operational activities within the firm (Chandrapala &

Knápková, 2013). Large firms are also more diversified than small ones and have greater market power and during good times may have relatively more organizational slack.

The size of the firm or enterprise also determines the cash flow sensibility to investments. In measuring the size of the firm size, total number of employees of the firm, volume of sales and amount of property are the main factors that are usually measured (Salman & Yazdanfar, 2012).

# 2.3.4 Liquidity

Liquidity refers to available funds that can be easily used for an investment and or expenditure. It is also an indicator of the ability of the firm meet its obligations as they become due (Alkhatib, 2012). Liquidity is a firm's ability to fulfill both expected and unexpected demands of cash on an ongoing basis. In order for a firm to sustain its activities and remain in existence for a long time, it must be liquid and able to meet its obligations at any time. Working capital management is crucial to any successful business. With poor management of working capital, the firm's funds are likely to be tied up in idle assets. This may reduce the firm's liquidity and the firm will not be able to invest in more profitable projects that may arise (Alkhatib, 2012).

Liquidity is measured using cash and cash equivalents divided by total average assets. Liquidity ratios compare the current assets of a business to the current liabilities. As such, the objective of focusing on a firm's liquidity is in order to determine how effectively an entity can pay its bills (Akhtar & Sadaqat, 2011). Liquidity is positively correlated with financial performance (Mwangi, 2014).

# 2.3.5 Leverage

Leverage also affects the financial performance of firms. Leverage in this research is described as total debts divided by total assets. It shows the extent to which a corporate is exploiting loaned money. It signifies the possible effect on capital as well as surplus of shortages in funds due to monetary claims (Adams & Buckle, 2000).

# 2.3.6 External/Macroeconomic Aspects

The macroeconomic strategy steadiness, Inflation, Rate of interest and Gross Domestic Product (GDP), Political volatility as well as social aspect is also other macroeconomic factors that influence the performances of companies. For example, the trend of GDP affects the demand for company's asset.

# 2.4 Empirical Review

This section introduces the empirical review based on the international studies and the local studies.

There are many studies that have been conducted on lease financing globally, Peterson (1984) carried out a tobit examination on a cross segments of about 600 organizations for a period of 1976-1981 to estimate the extent and likelihood of leasing activity and debt ratios and explanatory variables. He focused on financial leasing and found that leasing is substitute to debt. Their study used leverage, size, investment opportunity and performance measure as the independent variables and the key highlights were that leverage was negatively correlated with leasing decision; size and opportunity for growth were not significant in determining leasing decision. However, the study focused on

financial leasing only and was carried out in well-developed United States financial market.

Letoluo (2003) did a survey on effect of farmland leasing on domestic livelihood in Narok. A survey with eighty respondents who were randomly selected and ten informants were interviewed. It was established that leasing of a farmland increased revenue to farmers who had to shift from pastoralist to doing business late on.

Lackerath-Rovers (2006) carried out an operating lease study on 281 firms quoted on Dutch Securities Exchange in Netherlands. The study used logit and ordinary regression on explanatory variables such as size, leverage, industry factor, performance, growth and investment opportunities, asset structure, tax structure, ownership structure and management compensation. The findings indicated that corporate leasing depended on leverage, size and performance indicating that better firms will lease less because they can access other cheaper sources of finance especially retained earnings. Ownership structure was also an important factor determining leasing decision while tax consideration was not an important factor in determining leasing decision.

Vasantha (2012) did a study on capital market frictions, leasing and investment. He collected panel data on all non-monetary Standard & Poor's (S&P) 100, S&P 400 and S&P 600. The data panel consisted of 7012 firm over the period of 1995- 2006. He used the ratio of rental expenses with net PPE as a comprehensive measure of lease ratio. Operating lease ratio, was calculated as rental commitments /net PPE (rental commitment variable only includes non-cancellable leases), net cash flow, i.e., net earnings plus devaluation and payback as degree of cash flow, liquidity was measured as the mean ratio

of everyday total return to the dollar transaction capacity on that day, for credit rating was market based. Tobin's Q was used to measure firm's growth opportunities, the firm size was measured as a log of sales and capital investments were measured as capital expenditures. He found out that firms with high information leased more and those with low agency costs leased less.

Muhammad, et al. (2012) did a study on the aspects affecting the profitability of leasing companies in Pakistan. They analyzed a pool of data of 28 leasing companies for a period of 2006-2008. The variables used to determine profitability were size, leverage liquidity, age and net investment in lease finance. The study applied ordinary least square (OLS) model and Logistic (Logit) models for estimation of results. The results indicated that size, net investments in lease finance and liquidity had a positive connection with the effectiveness of leasing companies whereas leverage and age had a negative relationship with the profitability of the leasing businesses.

Mungami (2013) conducted a study on determinants of lease financing decisions by non-monetary companies quoted on Nairobi Securities Exchange, Kenya. Mann-whitney test, Pearson correlation and logit model were used to find out the influence of share possession structure, debt capacity, level of profitability, size, cash flow conservation, legal environment, accounting treatment, chief executive share ownership, institutional investor ratio, cross listing, liquidity, cash flow, cost of funds, industrial type, effective tax, investment opportunities and growth, pricing, bankruptcy costs, risk sharing, access to capital market, regulatory environment and judicial efficiency on lease funding resolutions by non-monetary businesses quoted on the Nairobi Securities Exchange. The results indicated that cost of capital, financial distress, size, share ownership,

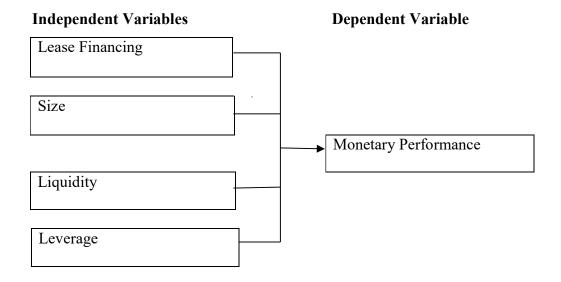
management compensation, total debt ratio, chief executive share ownership were important in explaining lease decisions in the case of operating leases and cost of capital, size, performance, management compensation, chief executive share ownership were important for capital leasing decision. The results of the study indicated that just like in developed countries effective tax rate and size of the firms were important in making leasing decision. However, financial distress and leverage were not major considerations by firms in making leasing decision.

Munene (2014) carried out a research on the effects of lease financing on the monetary performance of corporations registered at NSE. This research included all the 62 listed companies and adopted descriptive research design. Data for only 30 firms was available for the period under study and therefore, it was used as the sample size. Secondary data was gathered for the companies for the period of 2009 – 2013 from the monetary statements. The measures of monetary performance was taken as the dependent factor whereas amount of Finance lease, operating lease, liquidity, size of the firm and leverage was taken as the autonomous variable. The study concluded that lease financing does not affect the monetary performance of registered companies in Kenya.

Kibuu (2015) conducted a research on the effects of lease financing on the monetary performance of corporations registered at NSE. Data for only 33 firms which was available and complete for the period under study was used. Secondary data from annual financial reports and financial statements was poised for the organizations for the period 2010 - 2014. ROA was taken as the dependent variable while lease finance, size of the firm and liquidity was taken as the independent variable. The study concluded that lease

financing had positive, but insignificant effects on ROA which was used as the measure of the financial performance.

#### 2.5 Theoretical Structure



# 2.6 Summary of Empirical Review

In summary from the discussion above, it can be noted that Modigliani–Miller theorem, managerial risk aversion theory, financial contracting theory and agency cost theory offer the theoretical framework. The review of the literature presented the need to carry out the study because most of the studies touching on these effects have been carried out in developed countries whose macro and micro financial market conditions are very different from those found in Kenya such as the size and development of the capital market. Kenya Securities Market is still small with 65 companies as compared to US with over 650 firms and London stock exchange in UK with over 3,000 firms. Therefore, there is likely to be differences in outcome if Kenya adopts the prescription followed by other countries. Nagano (2003), suggested that there are differences in environments involving principals and agents among the countries even within similar bank- centered economies.

Overall, academic literature on leasing as an additional source of finance for enterprises underlines leasing as an advantage being an alternative mechanism to facilitate access to finance. According to empirical results, leasing experiences are related to reasonably low danger as likened to other forms of funding (Schmit, 2005; De Laurentis & Mattei, 2009). The existence of corporeal securities contributes very principally to this decreased risk profile (Schmit, 2005).

Lease financing is a factor that has been discussed in several studies and also in general literature. We still have gaps in the knowledge of effects of lease funding on the monetary performance. The area is still being explored by researchers in the context of previous empirical work.

#### CHAPTER THREE: RESEARCH METHODOLOGY

#### 3.1 Introduction

This section presents methodology of the study that is used to answer the study objective. It outlines how the research is carried out. Specifically, the section discusses the study proposal, the populace of the study, sample size, data collection and concludes with the data analysis methods and test of significance.

# 3.2 Research Design

Research design is the method that is utilized to conduct a research. This study used descriptive study plan and focused on factors determining use of lease financing on companies listed in the NSE. Descriptive study defines a topic, often by forming a profile of a group of difficulties, actions, or persons through the data gathering and tabularization of the occurrences on study variables or their interface. According to Cohen et al. (2003), descriptive plan is a procedure of gathering statistics to test hypothesis or to answer the queries of the present position of the topic under research. In this paper it is used to explain how lease financing affects financial performance for firms listed at the NSE.

#### 3.3 Population and Sample of the Study

Population is a set of people or items with similar features that a researcher intends to study and to draw statistical inferences or conclusions (Gall et al., 2006). According to Mugenda & Mugenda (2003) a research populace is a quantified set of persons, households, group of items, companies, services as well as actions which are being examined. Thus the populace must fit a particular description, which the researcher is researching in addition to the populace uniformity. The target populace of this research

was on all registered corporations in the NSE. There were 65 listed companies at the securities market (NSE, 2016). A census of all listed companies in the NSE that had reported use of lease financing in the financial statements over the past 5 years (between 2011 and 2015) was undertaken for the purpose of this research.

# 3.4 Data Gathering

Secondary data was used for this research. According to Cooper and Schindler (2003) secondary data is already collected data by researcher and readily available from other source. Secondary data analysis is efficient and helps in saving time that would otherwise be spent gathering data and, predominantly in the case of measurable data, provides greater and higher-quality databanks that will be impracticable for any investigator to collect on their own. For the purpose of this study, published yearly reports and monetary statements for each of companies listed over the past 5 years (2011-2015) were analyzed and those that had reported use of lease finance were selected. ROA was taken as dependent variable while lease financing, liquidity, size of the firm and leverage were taken as independent variables. Liquidity, size of the firm and leverage were used as control variables in explaining the relationship between lease financing and financial performance.

#### 3.5 Data Analysis

Data analysis was conducted after data collection by use of SPSS version 20. Regression analysis to discover the special effects of leasing financing on firms' performance in financial perspective was conducted on the data set. Salam (2013) argues that ROA is the most commonly used measures of monetary performance and in that case it has been used

to measure performance in this study. The correlation coefficient  $(R^2)$  and the coefficient of determination (R) of the data set were calculated to determine the causality connection between lease finance and financial performance.

The linear regression equation used for the purpose of this study:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where;

Y = Return on Assets (Measure of Financial Performance)

ROA = Net Income after tax/Total Assets

 $\beta \theta$  = Constant Term

 $\beta I = Beta coefficients$ 

X<sub>1</sub>=Lease Financing (Total Lease Financing /Total Assets)

X<sub>2</sub>=Size {Log (Total assets)}

X3=Liquidity (Current Assets/Current Liabilities)

 $X_4$  = Leverage (Debt/Total Assets)

e =Error term.

# 3.6 Test of Significance

The significance was tested using T-test and F-test. ANOVA was then conducted to check on the adequacy of the operations of the previous steps and for adding precision to the findings of the analysis. Other tests conducted on the ideal comprise test of Ordinariness, Test of Heteroskedasticity and Test of Model Specification. The findings from the analysis were organized, summarized and presented using tables, so as to attain the aims of the research as well as answer the study query.

## CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

## 4.1 Introduction

This section represents the results and findings of the research based on the research objectives. The study sought to use data from all the listed firms on the Nairobi Securities Exchange. This study is based on 33 listed firms that had whole data for all the variables in the study for the five year period under review.

## 4.2 Descriptive Statistics

**Table 4.1: Descriptive Statistics** 

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	165	54288	.38886	.0490107	.08794144
Lease	165	.00000	.45752	.0091938	.03672633
Size	165	3.94529	11.24666	7.2124648	1.21172669
Liquidity	165	.34311	10.08932	1.6797165	1.45925262
Leverage	165	.00075	4.27983	.6054814	.37950458
Valid N (listwise)	165				

Source: Research Data (2016)

Table 4.1 shows that ROA had a mean of 0.0490107 with a standard deviance of 0.08794. Leasing had a mean of 0.0091938 with a standard deviance of 0.036726. Size had a mean of 7.21247 with a standard deviance of 1.21173. Further, liquidity had a mean of 1.67972 and a standard deviance of 1.45925, whereas leverage had a mean of 0.60548 and standard deviation of 0.37951.

# 4.3 Correlation Analysis

**Table 4.2: Correlation Matrix** 

	ROA	LEASE	SIZE	LIQUIDITY	LEVERAGE
ROA	1	.300**	139	.317**	284**
LEASE	.300**	1	126	.014	060
SIZE	139	126	1	245**	.175*
LIQUIDITY	.317**	.014	245**	1	344**
LEVERAGE	284**	060	.175*	344**	1

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Source: Research Data (2016)

Table 4.2 shows the connection matrix for the determinants utilized in the study. Results show that none of the correlations were beyond 0.5 suggesting that the independent variables were not serially correlated. Thus, all of them could be used in a multiple regression analysis.

## 4.4 Regression Examination

**Table 4.3: Model Summary** 

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.466ª	.217	.197	.07879472	1.436

Table 4.3 shows the ideal summary. R value was 0.466. As shown by the  $R^2$ , the model accounted for only 19.7% of the variance in ROA. This hence signifies that other features

not researched in this investigation contribute 81.3% to return on Asset. Durbin-Watson digit is normally between 0 and 4; value of 2 indicates a no automatic connection among the independent variables. Values reaching 0 show positive auto-correlation and digits toward 4 show negative autocorrelation. Table 4.3 shows Durbin-Watson statistic of 1.436 which is a value approaching 2 which means there was no auto-connection among the independent variables.

**Table 4.4: ANOVA** 

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	.275	4	.069	11.071	.000 <sup>b</sup>
1	Residual	.993	160	.006		
	Total	1.268	164			

Source: Research Data (2016)

The Table 4.4 above displays the examination of variance. The outcomes showed that the model was noteworthy because p-value was 0.000 which is less than 0.05 thus the ideal was statistically significant in forecasting how lease financing influences Return on Asset, the F statistic of 11.071 was significant at 5% level, p-value = 0.000.

**Table 4.5: Coefficients** 

Model	Unstandardize	ed Coefficients	Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	.048	.042		1.139	.256
Lease	.682	.169	.285	4.033	.000
Size	001	.005	010	140	.889
Liquidity	.015	.005	.249	3.268	.001
Leverage	042	.017	180	-2.396	.018

Source: Research Data (2016)

Table 4.5 shows the constants of each of the autonomous variables in the study. As shown, leasing had a confident as well as substantial effect on ROA, since the p-value of 0.000 was less than 0.05. The results also demonstrate that size of the company had a negative irrelevant effect on ROA with a p-value of 0.889. The results also show that liquidity had a positive and significant effect on ROA, since the p-value of 0.001 was less than 0.05. Lastly, the results show that leverage had a negative but significant effect on ROA, with a p-value of 0.018 which is less than 0.05.

The regression equation was;

$$Y = .048 + .285X_1 - .010X_2 + .249X_3 - .180X_4 + e$$

## 4.5 Chapter Summary

The research discovered that leasing had a positive significant effect on ROA at 5% level of significance. This means that monetary performance of registered firms in Kenya is affected by lease financing, the effect being significant. This therefore implies that firms should increase their use of lease financing.

The research discovered that size of the company had an adverse irrelevant effect on ROA at 5% level of significance. This shows that size of listed firms at the NSE did not influence their financial performance. This is constant with a number researches before that have found size to be insignificant factors in explaining firm performance.

The study found that liquidity had a constructive and noteworthy effect on ROA at 5% level of significance. This suggests that liquidity does affect monetary performance of registered corporations in Kenya. While current assets were on average 1.68 times that of current liabilities, this level has significantly influenced performance of firms. Therefore firms should maintain a better position of liquidity since it influences performance.

The study found that leverage of the firm had a negative but significant effect on ROA at 5% level of significance. This demonstrates that listed firms at the NSE use borrowed funds did not influence their financial performance.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND**

## RECOMMENDATIONS

## 5.1 Introduction

This part shows the summary of research findings, the conclusions made from the results, and the commendations for practice as well as policy. The chapter also discusses a few limitations encountered as well as proposals for future study.

## 5.2 Summary of Findings

The research sought to determine the significant impacts of lease funding on the monetary performance of corporations registered at NSE. Secondary data from the yearly monetary reports of 65 registered firms were collected, but data for 33 firms were used in the analysis. The study used a several reversion examination to determine how lease funding affects monetary performance measured as the ROA.

The descriptive results showed that lease financing averaged 0.00919 while financial performance (ROA) averaged 0.4901. The results showed that size averaged7.2125. The descriptive results also showed that liquidity averaged 1.6797 while leverage averaged 0.6055. The correlation matrix showed that none of the independent variables was serially correlated.

From the regression outcomes, lease funding had constructive effects on ROA; liquidity of the firm had constructive influence on ROA as well while size and leverage had adverse influence on ROA. Lease, liquidity and leverage effects were significant at 5%

confidence level, while size effects were insignificant. The  $R^2$  showed that the ideal elucidated 19.7% of variance in ROA.

#### 5.3 Conclusion

This research settles that 33 businesses registered at NSE have been using lease financing for more than 5 years. It also concludes that there was a constructive relationship between lease funding and Assets Return. This implies that, a unit upsurge in lease financing will lead to a 0.285 enhancement in ROA. While the relationship is positive, it also passed the connotation tests at all the satisfactory levels of importance. Therefore financial performance of firms in Kenya is influenced by the level of lease financing.

The study also concludes that size of the firm does not have any effect on firms' performance in financial perspective. This is because the negative relationship failed significance tests at all acceptable levels of *significance*. Therefore firms' performance in financial perspective is not affected by the firm's size.

The research concludes that liquidity of a firm has a substantial effect on the monetary performance of registered businesses in Kenya. As it was shown, there is proof of a constructive relationship and the effect was significant at the acceptable levels of significance. Thus, the monetary performance of registered companies in Kenya is affected by the levels of firm liquidity.

The study also concludes that leverage of the firm does not have any effect on monetary performance of registered corporations in Kenya. While the relationship could be negative, this relationship passed the importance examinations at all the standard

significance levels. Therefore the financial performance of firms in Kenya is not affected by the leverage of the firm.

## 5.4 Recommendations to Policy and Practice

The research commends that firms should improve their use of lease financing as a method of financing their operations, as evidence suggests lease financing had statistically significant coefficients at 5% significance level, and hence very important in explaining the rationale of firms using it. The positive relation between lease financing and ROA may suggest that high levels of lease financing could be of importance to the performance of a firm. Therefore, it is important for the firms to examine what value lease financing may add to them when other financing options are available.

The study recommends that Leasing Association of Kenya, needs to be proactive in marketing and providing information on the leasing products in Kenya. This will go a long way to increase the use of both operating and finance lease which might improve the levels of use of lease financing as a financing option within firms in Kenya.

The study also recommends that since firm's size don't affect performance in financial perspective, small firms shouldn't be timid to explore ways of improving their performance since size is not detrimental as per now to their performance.

The study recommends that firms should improve on their liquidity since there is evidence that higher liquidity may lead to superior performance of the businesses. This is evidenced by the positive significant relationship between liquidity and ROA.

Lastly, the study recommends that firms should improve on their leverage. Though the relationship between leverage and ROA was negative, it was significant at 5% level of significance.

### 5.5 Limitations

This study was limited to corporations registered in Nairobi Securities Exchange. The study was using secondary data for all 65 listed companies, but could not use all the data for 65 listed companies because of data deficiencies. Some data, especially on lease financing, were unavailable for most of the firms or for some years in some firms leading to such firms being dropped from the final analysis. Thus, only 33 firms were used in the final analysis. This is almost half of the listed firms and therefore a fair representative sample of the entire market. Also it was not possible to separate between finance and operating leases since some of the firms did not separate, only lease prepayments were reported in the annual reports, thus total lease figures were used to proxy for lease financing.

## 5.6 Proposals for Additional Study

This research was limited to firms listed at NSE. This study therefore suggests that further studies must be conducted on effect of lease financing on firms' performance in financial perspective or SMEs in Kenya.

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## **APPENDIX**

## **Appendix 1: List of Companies Listed in NSE (July2016)**

## **AGRICULTURAL**

- 1. Eaagads Ltd Ord. 1.25
- 2. Kapchorua Tea Co. Ltd Ord. 5.00
- 3. Kakuzi Ord.5.00
- 4. Limuru Tea Co. Ltd Ord. 20.00
- 5. Sasini Ltd Ord. 1.00
- 6. Williamson Tea Kenya Ltd Ord. 5.00

### **BANKING**

- 7. Barclays Bank Ltd Ord. 0.50
- 8. CFC Stanbic Holdings Ltd Ord.5.00
- 9. I&M Holdings Ltd Ord. 1.00
- 10. Diamond Trust Bank Kenya Ltd Ord. 4.00
- 11. Housing Finance Co Ltd Ord. 5.00
- 12. Kenya Commercial Bank Ltd Ord. 1.00
- 13. National Bank of Kenya Ltd Ord. 5.00
- 14. NIC Bank Ltd Ord. 5.00
- 15. Standard Chartered Bank Ltd Ord. 5.00
- 16. Equity Bank Ltd Ord. 0.50
- 17. The Co-operative Bank of Kenya Ltd Ord. 1.00

## **AUTOMOBILES AND ACCESSORIES**

- 18. Car and General (K) Ltd Ord. 5.00
- 19. Sameer Africa Ltd Ord. 5.00
- 20. Marshalls (E.A.) Ltd Ord. 5.00

### **CONSTRUCTION AND ALLIED**

- 21. Athi River Mining Ord. 5.00
- 22. Bamburi Cement Ltd Ord. 5.00
- 23. Crown Berger Ltd Ord. 5.00
- 24. E.A. Cables Ltd Ord. 0.50
- 25. E.A. Portland Cement Ltd Ord. 5.00

### **COMMERCIAL AND SERVICES**

- 26. Express Ltd Ord. 5.00
- 27. Kenya Airways Ltd Ord. 5.00
- 28. Nation Media Group Ord. 2.50
- 29. Standard Group Ltd Ord. 5.00
- 30. TPS Eastern Africa (Serena) Ltd Ord. 1.00
- 31. Scangroup Ltd Ord. 1.00
- 32. Uchumi Supermarket Ltd Ord. 5.00
- 33. Hutchings Biemer Ltd Ord. 5.00
- 34. Longhorn Kenya Ltd
- 35. Atlas Development and Support Services

### 36. Nairobi Business Ventures

### **ENERGY AND PETROLEUM**

- 37. KenolKobil Ltd Ord. 0.05
- 38. Total Kenya Ltd Ord. 5.00
- 39. KenGen Ltd Ord. 2.50
- 40. Kenya Power & Lighting Co Ltd
- 41. Umeme Ltd Ord. 0.50

## **INSURANCE**

- 42. Jubilee Holdings Ltd Ord. 5.00
- 43. Pan Africa Insurance Holdings Ltd 0rd 5.00
- 44. Kenya Re-Insurance Corporation Ltd Ord. 2.50
- 44. Liberty Kenya Holdings Ltd
- 45. British-American Investments Company (Kenya) Ltd Ord. 0.10
- 46. CIC Insurance Group Ltd Ord. 1.00

## **INVESTMENT**

- 47. Olympia Capital Holdings ltd Ord. 5.00
- 48. Centum Investment Co Ltd Ord. 0.50
- 49. Trans-Century Ltd
- 50. Home Africa Ltd Ord. 1.00
- 51. Kurwitu Ventures

### **INVESTMENT SERVICES**

52. Nairobi Securities Exchange Ltd Ord. 4.00

## MANUFACTURING AND ALLIED

- 53. B.O.C Kenya Ltd Ord. 5.00
- 54. British American Tobacco Kenya Ltd Ord. 10.00
- 55. Carbacid Investments Ltd Ord. 5.00
- 56. East African Breweries Ltd Ord. 2.00
- 57. Mumias Sugar Co. Ltd Ord. 2.00
- 58. Unga Group Ltd Ord. 5.00
- 59. Eveready East Africa Ltd Ord.1.00
- 60. Kenya Orchards Ltd Ord. 5.00
- 61. A. Baumann CO Ltd Ord. 5.00
- 62. Flame Tree Group Holdings Ltd Ord. 0.825

## TELECOMMUNICATION AND TECHNOLOGY

64. Safaricom Ltd Ord. 0.05

## REAL ESTATE INVESTMENT TRUST

65. StanlibFahari I-REIT

Appendix 2: Research Data (2016)

COMPANY	ROA	LEASE	SIZE	LIQUIDITY	LEVERAGE
Athi river mining 1	0.04549	0.00300	7.71547	0.38345	0.67565
2	0.04046	0.00407	7.56717	0.46915	0.74478
3	0.04541	0.00501	7.47283	0.94507	0.72316
4	0.04622	0.00660	7.43061	1.22045	0.73582
5	0.05608	0.00864	7.31209	0.84235	0.70255
Bamburi 1	0.12351	0.00390	4.62356	2.35708	0.29322
2	0.09522	0.00454	7.61269	2.29684	0.28962
3	0.08539	0.00479	7.63363	2.68132	0.26725
4	0.11343	0.00407	7.63385	2.34802	0.28294
5	0.17489	0.00528	7.52507	2.62036	0.27843
Barclays Bank 1	0.03249	0.00023	4.62356	1.31639	0.83512
2	0.03714	0.00025	7.61269	1.19601	0.83092
3	0.03687	0.00028	7.63363	1.17394	0.84342
4	0.04729	0.00032	7.63385	1.20556	0.83992
5	0.04833	0.00036	7.52507	1.22761	0.83220
Car & General 1	0.02367	0.00000	6.47257	1.05621	0.66387
2	0.04396	0.00182	6.40366	1.09615	0.64580
3	0.04576	0.00195	6.34329	1.11203	0.63715
4	0.04672	0.00241	6.30380	1.16006	0.62436
5	0.05190	0.00263	6.24055	1.12326	0.65476
Carbacid 1	0.13249	0.02139	6.47257	4.51062	0.16563
2	0.19369	0.02544	6.40366	6.29627	0.14854
3	0.21572	0.02967	6.34329	10.08932	0.12701

4	0.19340	0.03296	6.30380	4.25787	0.17888
5	0.17368	0.03868	6.24055	8.84312	0.15668
Crown Berger 1	0.00754	0.00181	6.65697	1.10652	0.70197
2	0.00512	0.00220	6.58578	1.14640	0.65030
3	0.07260	0.00297	6.46915	1.38154	0.53769
4	0.05914	0.00400	6.35377	1.53593	0.47916
5	0.05823	0.00419	6.34544	1.46392	0.52494
East Africa Cables 1	0.04069	0.03540	6.65499	1.28322	1.26845
2	0.04324	0.01789	6.89705	1.16793	0.60810
3	0.05848	0.02174	6.83310	1.30482	0.54965
4	0.08355	0.02399	6.79579	1.19714	0.53189
5	0.06303	0.03162	6.69836	1.16063	0.54460
E.A Portland 1	-0.02429	0.00098	7.08054	1.58532	0.86535
2	-0.02460	0.00060	7.19638	0.94641	0.57342
3	0.11004	0.00071	7.20773	1.08513	0.56053
4	-0.06959	0.00083	7.14541	1.02370	0.67078
5	0.04175	0.00087	6.00469	1.46908	0.58226
Eveready 1	0.38886	0.45752	6.17946	0.98359	0.46662
2	-0.19094	0.00021	5.96851	1.33386	0.76511
3	0.04828	0.00021	5.97343	1.54041	0.58032
4	0.06090	0.00018	6.06097	1.25911	0.69629
5	-0.12266	0.00021	6.00469	1.11539	0.72958
Kakuzi 1	0.11693	0.00096	6.65851	4.14418	0.24397
2	0.04153	0.00114	6.58630	6.65696	0.22624
3	0.04439	0.00118	6.57026	7.95385	0.21883

4	0.11441	0.00123	6.55287	8.47451	0.21572
5	0.16881	0.00212	6.58176	3.34507	0.27783
Kengen 1	0.19200	0.00941	8.53469	0.95058	0.58661
2	0.01130	0.00420	8.39830	1.09662	0.69341
3	0.02783	0.00236	8.27571	1.42185	0.60801
4	0.01730	0.00026	8.21257	1.48578	0.57051
5	0.01292	0.00006	8.20681	1.73579	0.56881
KenolKobil 1	0.09883	0.05105	7.23998	1.23740	0.50765
2	0.04563	0.03072	7.37867	0.95025	0.69348
3	0.01986	0.02136	7.44904	0.93456	0.76295
4	-0.19228	0.01863	7.51434	0.96841	0.80279
5	0.07121	0.01424	7.66252	1.22418	0.74659
KPLC 1	0.02788	0.00048	8.44011	1.64343	0.69704
2	0.02933	0.00060	8.34264	1.03202	0.67013
3	0.02457	0.00074	8.24836	0.92261	0.68722
4	0.03442	0.00098	8.12753	0.89728	0.60108
5	0.03520	0.00110	8.07874	1.15739	0.66847
KQ 1	-0.18780	0.00679	5.26022	0.50215	1.03275
2	-0.02275	0.00833	5.17219	0.46483	0.81011
3	-0.06411	0.01007	5.08874	0.56270	0.74559
4	0.02144	0.00006	4.88892	1.40050	0.59822
5	0.04493	0.00006	4.89621	1.06338	0.70609
Safaricom 1	0.20306	0.00001	8.19578	0.62446	0.33564
2	0.17101	0.00001	8.12905	0.74019	0.32217
3	0.13612	0.00002	8.11011	0.69296	0.37710

4	0.10359	0.00002	8.08600	0.56344	0.40868
5	0.11558	0.00002	8.05635	0.63607	0.40754
Sameer 1	-0.01173	0.00010	6.57417	2.20502	0.33556
2	-0.01735	0.00009	6.58629	2.52383	0.34245
3	0.10936	0.00010	6.56449	3.37397	0.26956
4	0.05582	0.00022	6.53143	2.83315	0.31560
5	0.03102	0.00024	6.49486	3.01996	0.28008
Sasini 1	0.10866	0.00115	7.20533	4.40157	0.15495
2	0.00304	0.00134	7.17405	2.32795	0.18812
3	0.01013	0.00224	6.95686	1.77100	0.29505
4	-0.01391	0.00230	6.95051	1.89518	0.27975
5	0.04760	0.00220	6.97598	2.13089	0.28534
Standard Group 1	-0.07478	0.03029	6.58799	0.95540	0.61012
2	0.05376	0.02899	6.61297	1.21921	0.46168
3	0.04581	0.02914	6.61666	1.15610	0.51588
4	0.05235	0.03489	6.54426	1.11582	0.47483
5	0.04195	0.02379	6.54559	1.07799	0.52906
Total Kenya 1	0.04719	0.02409	6.58799	1.52359	0.48576
2	0.04376	0.02176	6.61297	1.48822	0.49525
3	0.03282	0.01785	6.61666	1.27744	0.61537
4	-0.00613	0.02064	6.54426	1.29965	0.56967
5	-0.00203	0.01945	6.54559	1.10028	0.73877
TransCentury 1	-0.08236	0.06458	7.33881	0.62982	0.83748
2	-0.11703	0.02222	7.28922	1.59495	0.13929
3	0.02628	0.01874	7.37731	1.48706	0.12796

4	0.03370	0.00686	7.33937	1.28457	0.44755
5	0.02834	0.00726	7.33730	1.40993	0.52151
Uchumi 1	-0.54288	0.00300	6.79950	0.34311	0.88268
2	0.05582	0.00279	6.83789	0.67174	0.51236
3	0.06405	0.00349	6.74613	0.70475	0.47512
4	0.07181	0.00517	6.58156	1.09827	0.43435
5	0.11568	0.00593	6.52827	1.08606	0.47177
Unga Group 1	0.07056	0.00370	6.93811	2.36852	0.38245
2	0.04769	0.00429	6.90453	2.27132	0.39366
3	0.06108	0.00429	6.91996	1.83784	0.45895
4	0.05432	0.00590	6.80688	2.35827	0.37938
5	0.07726	0.00708	6.75655	2.52205	0.34401
NIC Bank 1	0.02308	0.00315	8.21955	1.30969	0.84109
2	0.02824	0.00359	8.16370	1.17468	0.83982
3	0.02674	0.00006	8.08301	1.16987	0.85488
4	0.02803	0.00007	8.03482	1.16661	0.85711
5	0.03427	0.00009	7.89754	1.13801	0.86677
National Bank 1	-0.00933	0.00000	8.09844	0.44792	0.91188
2	0.00707	0.00000	8.09023	1.04226	0.90069
3	0.01202	0.00000	7.96640	1.05896	0.87155
4	0.01087	0.00017	7.82708	1.11209	0.84439
5	0.02252	0.00017	7.83673	1.12511	0.84772
KCB Bank 1	0.03516	0.00024	8.74671	1.06115	0.81834
2	0.03436	0.00028	8.69050	1.15867	0.81978
3	0.03669	0.00036	8.59201	1.14408	0.81815

4	0.03316	0.00040	8.56587	1.14470	0.82822
5	0.03320	0.00045	8.51946	1.09394	0.86585
I&M Bank 1	0.03461	0.00173	8.21702	1.03318	0.83730
2	0.03249	0.00165	11.24666	1.27052	0.00075
3	0.03523	0.00171	11.14984	1.27759	0.83231
4	0.02846	0.00170	11.16054	1.17153	0.69004
5	0.03214	0.00232	11.03368	1.16575	0.85965
HFCK 1	0.01652	0.00063	7.85527	1.55824	0.85176
2	0.01600	0.00076	7.78506	1.53338	0.89241
3	0.02100	0.00099	7.67568	1.62340	0.87635
4	0.01815	0.00116	7.61232	1.63847	0.87457
5	0.01952	0.00151	7.50339	1.60475	0.85313
Equity Bank 1	0.02440	0.01071	8.63151	1.50498	0.83148
2	0.03303	0.00041	8.53077	1.26530	0.82723
3	0.04781	0.00065	8.44362	1.28747	0.81437
4	0.04968	0.00120	8.38591	1.27808	0.82351
5	0.05260	0.00015	8.29291	1.22246	1.00000
Co-operative Bank 1	0.02570	0.00011	8.53466	1.04679	0.85605
2	0.00997	0.00015	8.39326	1.16914	0.98059
3	0.03939	0.00017	8.36402	1.12541	0.84178
4	0.03845	0.00019	8.30295	1.09962	0.96886
5	0.03186	0.00023	8.22611	1.04166	0.87552
CFC Stanbic 1	0.01827	0.00027	8.31901	1.23958	0.81595
2	0.03142	0.00033	8.25768	1.19844	0.79616
3	0.02840	0.00035	8.25651	1.15906	0.82037

4	0.02102	0.00046	8.15598	1.14835	0.80979
5	0.01092	0.00046	8.17659	1.08140	0.87129
Nation Media 1	0.16312	0.00599	4.10369	2.09543	0.29480
2	0.20179	0.00696	4.07716	2.36504	0.26592
3	0.22135	0.00724	4.05859	2.52031	0.27969
4	0.23510	0.00790	4.02847	2.25330	0.31411
5	0.22762	0.00964	3.94529	2.31345	0.30556
BOC Kenya 1	0.02949	0.00146	6.36567	2.06353	0.26147
2	0.09982	0.00148	6.36179	2.13901	0.24046
3	0.07696	0.00133	6.42047	2.22698	0.21155
4	0.09921	0.00180	6.29875	2.07934	0.26877
5	0.08290	0.00203	6.25931	1.94006	4.27983
EABL 1	0.11895	0.00016	7.82568	1.02248	0.37244
2	0.10910	0.00017	7.79842	0.72129	0.43681
3	0.11860	0.00019	7.76757	0.69881	0.45438
4	0.20493	0.00020	7.73707	0.80315	0.41191
5	0.18133	0.00060	7.69646	1.05231	0.31198