EFFECT OF CAPITAL BUDGETING DECISIONS ON PROFITABILITY OF LISTED FIRMS AT NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

I, the undersigned, declare that this research project is my original work and has not been submitted to any other college, institution or university for academic credit.

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DEDICATION

This research project is dedicated to my dear parents who educated me and enabled me to reach this far and for their prayers and encouragement. I would also like to dedicate this project to my dear children for their presence, moral support and endurance with me during my project writing period and the entire duration of the study.

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
CFO	Chief Finance Officer
CMA	Capital Markets Authority
EBITDA	Earnings before Interest, Tax, Depreciation and Amortization
EPS	Earnings per Share
IRR	Internal Rate of Return
NPV	Net Present Value
NSE	Nairobi Securities Exchange
ROA	Return on Assets
WACC	Weighted Average Cost of Capital

ABSTRACT

The listing of firms in an authorized security exchange does not exempt any organization from accountability and transparency in allocating the funds available for investment. In this regard every decision made by management should be authorized and be implemented to maximize the shareholders wealth. The huge amount of capital invested should be able to produce a payoff exceeding the investment so that an organization would experience returns to compensate the risk takers i.e. the shareholder and lenders of debt. This study sought to determine the effect of capital budgeting decisions on profitability of listed companies in Kenya. The population for the study was all the 64 companies listed in Kenya. The independent variables for the study were capital expenditure as measured by natural logarithm of total assets, revenue as measured by natural logarithm of total revenue and leverage as measured by long term debt divided by (shareholders equity + long term debt). Financial performance was the dependent variable and was measured by Return on Assets (ROA). Secondary data was collected for a period of 5 years (January 2012 to December 2016) on an annual basis. The study employed a descriptive cross-sectional research design and a multiple linear regression model was used to analyze the relationship between the variables. Statistical package for social sciences version 21 was used for data analysis purposes. The results of the study produced R-square value of 0.694 which means that about 69.4 percent of the variation in profitability of listed companies in Kenya can be explained by the four selected independent variables while 30.6 percent in the variation of profitability was associated with other factors not covered in this research. ANOVA results show that the F statistic was significant at 5% level with a p=0.000. Therefore the model was fit to explain the relationship between the selected variables. The results further revealed that capital expenditure and revenue produced positive and statistically significant values for this study while leverage produced negativebut statistically significant values. This study recommends adequate measures to be put in place by managers of listed firms to improve and grow their profitability through capital expenditure. Listed firms and all firms in general should make appropriate capital budgeting decisions that will lead to an increase in profitability because this translates to improved shareholder wealth which is the main goal of a firm.

CHAPTER ONE

INTRODUCTION

1.1 Study Background

Business firms are established with the ultimate reason to produce revenue over a long period of time. The firm depends on the availability of capital resources, skilled manpower, and technology in order to achieve its intended goals. The management through agency arrangement is mandated by the owners or the providers of capital to oversee the daily running of the firm and make appropriate decision which will increase the wealth of the shareholders. The decisions will always range from acquisition of new assets, recruitment of skilled staff, reorganizations of the business due to new technology changes, modification of existing assets or eve acquiring other business organizations. The above activities require planning, evaluation and implementation which must be in line with strategic planning of the firm. The planning process and of utilization of resource will enhance proper financial expenditure decision, hence the capital budgeting decisions. If the decisions are well implemented, the firms' profitability is expected to increase (Mooi & Mustapha, 2001)

The research is anchored towards the Real Options Theory which argues that managers face difficulties in projecting future cash flows of the companies they are obligated to provide stewardship. This theory advices managers to assess projects using various techniques among them discounted cash flow method (DCF) and from that process pick the best alternative that will maximize the cash flows. The conventional capital budgeting theory was developed by **(**Woods & Randall, 1989). In

which the theory established that in capital budgeting, the NPV criterion is used to measure shareholders' wealth which is the main objective in financial management

The whole process of capital budgeting would incorporate the several planning stages including but not limited to project identification and prioritizing through evaluation, specifying the available form of capital finances and financing policies in place, project authorization and implementation (Dayananda, 2002). In every capital budgeting stage, several decisions or deliberations are arrived at, hence this is what culminates to capital budgeting decision and they need to be implemented. The planning stage would ideally denote the theoretical aspect of capital budgeting while implementation stage would imply the practical aspect of capital budgeting (Jacobs, 2008). It's therefore necessary to justify how the process was carried out and the eventually justifying of the decisions implemented, hence their effect on the profitability of the firm.

1.1.1 Capital Budgeting Decisions

The process by which organizations appraise their projects in order to be able to allocate scarce resources to achieve optimal output refers to capital budgeting (Burns & Walker, 2015).The shareholders appoint the management with the expectation that management will perform their duties efficiently and effectively in order to increase the value of the company. This will involve allocation of resources to the projects with a positive net present value .It's this process where identification and determination of the viability of the project takes place and eventually making a decision as to which project to invest in, is referred to as capital budgeting decision (Obi, & Adeyemo, 2014).

In theory making a benefit out of an investment, the initial capital used should be generated before any benefit starts to accrue. It's on this strength that the management of any firm would declare that the cost incurred have been borne by the project. Capital budgetary decisions therefore, involves the adoption of appropriate capital budgeting tools that will provide the managers that has both the procedure as well as tactics needed to make decision that will enhance the company resources' base and improve its profitability (Bierman & Smidt, 2012).

1.1.2 Financial Profitability

Financial ability of any firm can be traced in the financial statements of the organization by equating the capital expended and revenues generated. The financial activities that the management evaluated ought to have been approved after all due diligence have been done and all expenses taken into consideration. The resultant difference i.e. excess revenues over expenses for any activity is referred to as profits while the opposite of this is referred to as a loss (Yahaya & Lamidi, 2015).

Profitability is measured by the return on assets (ROA), Earnings before Taxes Interest and Depreciation Amortization (EBTIDA) margin, net income, return on equity, return on investment and economic value added. Profitability is an indicator of efficiency and effectiveness that management has attained through the implemented capital budgeting decisions. It's careful to note that although profitability is a measure of efficiency, this does not indicate that all firms that do not generate profits are not efficient (Enqvist, Graham, & Nikkinen, 2014). The reason being the net figure simply reveals a satisfactory balance between the values expended and the values generated. Therefore the key element here is the operational efficiency an enterprise depends on and notably there are other factors besides efficiency that affects

profitability e.g. the policies of the firm, political stability and regulatory environments prevailing in the society and the industry at large (Kajirwa, 2015).

As indicated by Combs, Crook, amp; Shook, (2005), measurements of money related execution is: productivity, development, and market esteem. Productivity measures an association's past capacity to create returns (Bergin, & Glick, 2005). Growth portrays a firm's previous capability to enlarge its volume. Huge size means economies of scale showcase control and improved future productivity. Market esteem speaks to the outer appraisal as well as the wish of company's prospect implementation. It has a correlation with verifiable benefit as well as growth levels; it likewise consolidates potential needs of market varies as well as competitive moves (Santos & Brito, 2012).

1.1.3 Capital Budgeting Decisions and Profitability

Studies have been carried out to determine the correlation between the capital budgeting decisions firms engages in and the firms 'profitability. The studies take into considerations the accounting information where performance measures are computed and analyzed done to establish the rationality or the ways in which a company operates so as to realize its goals for the investors' assets maximization (Chrisy, 1966; Klammer, 1982; Munyao, 2010).

This fact reveals that businesses can intensify their shareholders' wealth through employment of modern appraisal systems. Along these lines, from a budgetary hypothesis point of view, it is ordinary that the relationship involving complex capital evaluation methods and firms' profitability is certain. However, when considering the relationship between capital budgeting decisions and profitability fluctuations, the results achieved require a thorough examination. Klammer (1973) built up that regardless of the increasing selection of refined capital assessment strategies in the

U.S., there wasn't predictable noteworthy correlation involving profitability and capital budgeting decisions.

1.1.4 Listed Firms at Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) is the Kenyan main security stock exchange. NSE started its functions back in 1954 as a colonial stock exchange. Nairobi Securities Exchange was the London Stock Exchange (LSE) associate. Currently, the NSE has been listed as the African Stock Exchanges Association member. It is imperative to note that, NSE holds the 4^{th} position as the Africa's largest stock exchange if express in trading capabilities, as well as in the fifth position if expressed with view of market capitalization as a proportion of the Gross Domestic Product. By 31st December, the total of listed firms in the NSE was about 61 in number (NSE, 2017).

There are about 66 listed firms at the Nairobi Security Exchange (NSE) under different sectors. The CMA (Capital Markets Authority) established in 1989 through an Act of Parliament (Cap 485A, Laws of Kenya), is the Government regulator charged with regulating and licensing capital markets in Kenya. Once a firm is listed, its share are traded in an official security exchange like the Nairobi Security Exchange for firms listed in Kenya. There are many benefits associated with a firm being listed which include but not limited to, raising cheap capital and the spreading of risk of ownership among a large group of shareholders. It's also advantageous to list due to the fact that the listed firm can acquire another firm through issue of share without actual flow involved. It's also an advantage to list since it enables the firm to be indirectly advertised and gain increased credibility (NSE, 2017).

This is supported by the rigorous due diligence processes the firm undergoes and eventually brings out transparency around the value of the business. It's also evident that public profiling of these listed firms will improve clarity and attract high caliber management and board members. These advantages improve customer supplier and investors' confidence and translate to a good business standing, more so in the global arena. It's evident that all entities require capital to meet its financial obligations and in Kenya the available sources of funds are mainly from shareholders equity and debt.

The listed firm are categorized under specified sectors which include the following; under Agricultural Sector about 7 seven firms, Automobile and Accessories three firms(3),Banking sector listed firms about Eleven(11),Commercial and Services, about twelve (12),Construction and Allied sector five (5) listed firm, Energy and Petroleum Sector having five (5) firms, Insurance sector six (6),Investment Sector FIVE(5),Investment Services one(10 firm, Manufacturing and Allied firms ten (10) and telecommunication and Technology having one firm (1).

1.2 Research Problem

The listing of firms in an authorized security exchange does not exempt any organization from accountability and transparency in allocating the funds available for investment. In this regard every decision made by management should be authorized and be implemented to maximize the shareholders wealth. The huge amount of capital invested should be able to produce a payoff exceeding the investment so that an organization would experience returns to compensate the risk takers i.e. the shareholder and lenders of debt.

The shareholders commit the responsibility of investing to the management through agency arrangement with the belief that managers will invest in the projects which are in line with strategy of the organization. The management have more information in

organization and the shareholders rely on any information availed to the mainly at the general meeting. This brings about the issue of information asymmetry. Lack of enough disclosure of information is detriment to the stakeholder and privy to the inside happening within the organization recent case in question if where the board of directors of Imperial bank had concealed their inside dealing and lead to the closure of the bank.

The firms in the membership list of NSE, plays a very important function in the state's financial system growth, thus calling upon all the finance mangers in all firms listed in the NSE to efficiently control their financial plan so as to advance on managerial fiscal stability. The capital budgeting techniques influence as far as fiscal performance of companies are concern, has remain an issue to be solve, by a number of financial managers in a number of companies in the NSE list. A number of finance mangers up to date, have not in clarity set up on the limits by which capital budgeting strategy influences the company's success. Due to the inability of a number of financial managers in diverse firms apply the effectual capital budgeting techniques, it has resulted to the declining of a number of firms' performance as far as profitability is concerned.

Various global and international studies have been done on capital budgeting. Internationally, Mudiyanselage (2014) did a study on capital budgeting techniques in large business in SriLanka by examining various variables and the relationship they have towards firms in Sri Lanka together with capital budgeting. Chan, Staddad and Sterk (2014) carried out a study to identify capital budgeting practices by Chinese firms, motivated by many studies that have been done in US on this topic but very few done in China, he carried a survey on firms in China. Karim et al (2010) also

carried out a research in Canada titled: Improved capital budgeting decisions in the making; evidence from Canada. They sought to discover the practices of capital budgeting by Canadian firms.

Locally, several researchers have done studies on capital budgeting; Kiget (2014 did a study on capital budgeting techniques adopted by companies listed at Nairobi Securities Exchange to determine the structure of capital budgeting techniques adopted by these firms, she also analyzed the factors affecting the techniques adopted by these firms and lastly sought to identify the risks din capital budgeting adopted by listed firms in the NSE. Nyambura (2014) did another study to demystify the association between capital budgeting and financial performance of firms listed in NSE, this study was motivated by several inconsistencies in findings in both local and international researches in the field of capital budgeting. It is now clear from the few international and local researches have empirical studies on the related study topic, however, from the aforementioned studies it clear that no study has concentrated on this specific study in Kenya according to the best knowledge of the researcher in respect to capital budgeting decisions with respect to NSE and that is why the study intends to carry out this research with an aim of filling this research gap and answering the research question on effect of capital budgeting decisions on financial performance of performance of listed firms at NSE

1.3 Research Objective

The objective of this research is to establish the effect of capital budgeting decision on profitability of firms listed in the Nairobi Securities Exchange**.**

1.4 Study Value

This study will benefit various entities where managers will use the information to evaluate the current CBP (capital budgeting practices) in their companies. By looking at the study, the managers will get more knowledge on the capital techniques applied across the Kenyan firms and how these techniques can possibly improve the company's wealth or value. With that, they can make some comparisons with their company's practices. This is important because a company's main objective is to maximize its shareholder's wealth. To achieve this, the company will possibly need the most reliable tool that can assist in investment decision making.

Researchers will also benefit from this study since it will give functional info for scholars about the capital budgeting techniques as well as their shock on fiscal performance of firms listed at NSE. Other than that, the scholars can borrow from this study, when they are conducting more research on related topics.

The finding will be essential to scholars who may wish to complete extra research in capital planning since it will add more to the current assemblage of learning It will give definite data to them on how far the systems instructed in class vary from that rehearsed in reality. By having this data, academicians will have the capacity to influence a few changes in endeavoring to suit things instructed in class with genuine practices.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Literature review is a significant examination of the theoretical framework on which the capital budgeting decisions is based, literature on profitability, capital budgeting decisions and profitability. This will enable the study to identify existing gaps and how to address them. Empirical studies will also be analyzed to determine the additional research needed on capital budgeting decisions and firms profitability.

2.2 Theoretical Framework

Different theoretical provide insights on capital budgeting decisions and performances are obvious. The research study is anchored towards the contingency theory, conventional capital budgeting theory and the real option theory.

2.2.1 The Contingency Theory

The contingency theory was improved by Pike (1986) noticed that asset portion proficiency isn't simply a matter of embracing modern, hypothetically predominant assumption strategies and methods. Emphasis ought to be given to the fit between the corporate setting, outline of operations and the capital budgeting framework. The theory is centered on three parts of corporate venture to be specific company's hierarchical attributes, besides, decentralization and regulatory introduction, thirdly, institutionalization and behavioral controls.

As per Hakaet al. (1985), reprimanded the possibility hypothesis by pointing out an inverse assumption. They have challenged that firms that obtain as well as employ complex capital budgetary decisions finds extra returns and hence improved total

revenues. Although the theory has experienced some critics it is relevant in the research for it has emphasized on the corporate investment techniques and procedures used by the investors and firms in order to influence their financial performance.

2.2.2 The Real Options Theory

The Real Options theory was developed by Myers (1984) the theory emphasized on the necessity of tremendous interest on business enterprise by money related specialists and examiners. Peterson and Chance (2002) have noticed that authentic management options deal with real investments such as capital budgeting projects. Real alternatives give an extra effective course for directors to allot capital and increase investor value by employing vulnerability and constraining hitch risk. Besides, the theory states that proximity of real alternatives may build a venture worth more than its normal distinct low-income value.

Arnold and Shockley (2003) have ascribed increased interest for real options to forces of supply and demand. The supply side reflects a growing collection of text relating to the real options approach. The demand side for real options reflects management position on the firm to income by vulnerability and to impart the association's key adaptability. Progressively, managers in enterprises explained by vast capital speculations and extensive vulnerability and adaptability e.g. mining, oil and gas aviation and in addition biotechnology are thinking about the utilization of real options. Real alternatives hold a significant assurance since they perceive that managers can acquire valuable data after beginning of the investment. The theory is necessary in the research study for it recognizes the decision of the investors before making investments decision in the firms listed in the NSE

2.2.3 Conventional Capital Budgeting Theory

The conventional capital budgeting theory was developed by Woods & Randall (1989). In which the theory established that in capital budgeting, the NPV criterion is used to measure shareholders' wealth which is the main objective in financial management. The riskiness of projects cash flows is equal to the firms' riskiness of other assets cash flows and the firms weighted average capita cost (WACC) is used to calculate NPV. Some future investment opportunities (FIOs) are acknowledged by the market due to their uncertainty and risk perceptions.

Conventional Capital planning approaches are biased towards FIOs in the long term in potential opposition to investors' interests. Therefore, discounting ought to be done at the required return on equity (Ke) rather than WACC (Ka) to determine shareholders' wealth attributable to FIOs. The ability to borrow on FIOs basis would increase shareholders wealth by quantifiable amount, if the management has a clear incentive to increase its credibility in the financial markets. When organization is perhaps reluctant to reveal information or incapable of convincing markets of prospect cash flows, a deviation will be flanked by the market value of shares as well as factual investor's possessions (Woods & Randall, 1989). The theory is relevant on the research for it outlines the essences of the criteria of the shareholder before making investment decisions.

2.3 Profitability Determinants

The analysis of profitability has a special essence to the management, in their effort to uphold the organization's strength as well as to enlarge its stability in the overall industry. Efficiency of organization managers as well as effectiveness of the resource can influence specifically the improvement of the condition of their functional, by

getting affirmative fiscal outcomes. The fundamental objective is aimed at becoming profitable through eliminating of negative impacts and to improve those with optimistic effect on company.

Analysis of the drivers of profitability is necessary for every stakeholder, but mostly for shareholders. This standard gives a theoretical as well as operational arrangement for assessing company's implementation. The assessment of financiers, characterized as market judgment of a company is subject to a few features: the present profitability of the association, its dangers, and its economic development basic for prospect association income. These are main considerations affecting the market evaluation of a firm (Branch & Gale, 1983).

2.3.1 Size and Financial Stability of the Firm

The size of the business can absolutely influence profitability in respect of the truth that larger companies can employ this ideal opportunity to obtain fiscal advantages in commercial relations Mathur (1997). Large organizations have less demanding entrance to the mainly critical variables of production, like HR. Similarly; large firms regularly get less expensive financing. According to Crane (2012), financial efficiency, liquidity, repayment capacity, solvency and profitability are the main measures of financial performance in which the commonly used indicators are as Net operating income, Return on Equity, Return on Assets, Return on Sales, net income and Return on Capital Employed (ROCE),. Kaplan & Norton, 2001 argued that Balance scorecard is also another measure of financial performance for it involves customer performance, learning and growth, internal business processes and financial performance. ROA and ROE are commonly used as a measures of financial position of the microfinance institutions in Kenya and indicates the performance of the

organization in the industry in terms of its operation efficiency and profitability (Boru, 2014)

2.3.2 Risk and Economic Growth Rate

There are different techniques in measuring the financial performance that firms should commonly focus based on aggregation and no single measure of financial performance should be considered solely for instance revenue realization, cash flow, unit sales aggregations and operating income when used can be an effective measure of financial performance (Stoner, 2003). Financial performance of the microfinance institutions should be computed in a comprehensive. Fruhan (1979) calls attentions to the risk plus expansions are two extra very important fundamentals touching a company’s money related implementation. Since showcase esteem is adapted by the firm's conclusions, the point of risk introduction can root changes in its fairly predictable value and timely in order to provide essential information to the owners of the institutions which will informs their decision making process. (Hitt & Moesel 1996).

Brief & Lawson (1992) contends that budgetary markers in light of bookkeeping data are adequate keeping in mind the end goal to choose the motivation for shareholders. An organization's monetary execution is specifically impacted by its market position. Productivity can be deteriorated into its primary segments: net turnover and overall revenue. Ross (1996) contends that both can affect the benefit of a firm in one way. On the off chance that high revenue means improved employment of returns alleged by the company as well as consequently better yield, higher net revenue implies that the aspect has significant control of the market.

2.3.3 Availability of Resources and Competitive Advantage

Every successful firm is likely to perform better when they have enough recourse and hence a competing edge (Wernerfelt, 1984). Firms with resources like cash, loans, qualified and capable employees who are able to accomplish organizational processes on time stand a better performance. It’s also important to have good firm attribute and available information systems.

The resource-based view (RBV) stresses that organizations' assets are a fundamental factor that impact upper hand and execution. As per RBV, firms control certain assets under various classes that can conceivably contribute towards improved execution. Earlier investigations check firms have assets that give the possibility to upper hand which in this way prompt predominant execution (Othman, Arshad, Aris and Arif, 2015).

As indicated by Meutia and Ismail (2012), the establishments of an association's advance, gainfulness and supported upper hand would regularly be reflected through its assets. They stressed that organizations have diverse classifications of assets and the utilization of this vital device take into account the likelihood of an alternate way to development. Firms can convey its assets in systems and arrangements that will make the organizations more productive and successful (Fahy, 2002). The contending needs of assets for association's survival and stay focused in the market has urged directors to adequately deal with its assets to empower them to accomplish company's destinations. Almarri and Gardiner (2014) featured the accomplishment of maintainable upper hand is improved when assets are conveyed to make an incentive for clients prompting predominant execution.

2.3.4 Sales Growth and Sustainability of Investment

Firms grow when the generated revenue increase and the growth continues to unforeseeable future. According to (Delmar et al 2003), the correlation involving company development and benefit can be certain or negative. Asimakopoulos (2009) built up a positive connection between firm development and productivity. Then again, explore performed by Weisbord (1994), Markman and Gartner (2002), and Coad (2007) recommends no relationship between the factors.

Raman et al. (2005) display a contextual analysis of a support stock investments speculator who utilizes the proportion of offers development rate to stock development rate as one of the measurements in settling on venture choices on retail stock. The fundamental objective of pioneers in expansive organizations is to boost the income and that the expansion in deals will dependably proceed, even to the detriment of lower benefits, in both the short and long haul (Baumol, 1959). Asimakopoulos (2009) perform on the determinants of companies gainfulness of non-budgetary Greek company recorded in Athens Exchange. Their discoveries demonstrate that firm gainfulness is emphatically influenced by measure, deals development and speculation and adversely by use and current resources.

2.3.5 Age and Productivity of the Firm

This is on account of firm age is connected with, for instance, more conspicuous experience, better reputation, more information, and more vital access to business frameworks and money related foundations, all of which empower the firm to beat confined access to resources and work more capably (Curran et al.,1993). Concentrates that review the association including organization age and efficiency have conveyed mixed findings. While a couple of these studies have a common

findings that age and efficiency are conversely related, others, for instance, Claver et al. (2002) and Ito and Fukao (2006), find a positive and essential association including them. In light of this theoretical establishment, using the typical logarithm of the amount of years as far back as organization cause as the middle person variable for age, the going with is conjectured.

2.4 Empirical Literature

Klammer (1973) inquired about relationship including capital arranging methodology and companies' execution. The theorist involved 369 collecting associations. The reaction rate was around 50%. The expectation of research was operational return rates as satisfactory measure of the associations' execution. Capital planning techniques were connected to measure the payback strategy and the reducing strategies. A straight relapse examination was utilized These outcomes informed that in any case with respect to the utilization of capital planning strategies there is no affirmed relationship including execution and the evaluation techniques utilized since there are other factor that influence execution e.g. advertising, item improvement

Haka et al. 2014) decided the effects of an organization's execution by moving from conventional examination strategy to contemporary technique. The declaration were that organizations utilizing contemporary strategy tend perform superior to those utilizing custom techniques.

A sample off 50 firms was utilized. About 60% of the organizations responded. Likewise, they utilized individual meetings for two bases; first to decide whether the firm had undoubtedly received refined capital planning methods; furthermore; it was imperative to learn correctly when the selection occurred.

In comparison with Klammer (1973) work these outcomes were considerably more conclusive. They revealed that four years previously the organizations changed to contemporary capital appraisal methods, with three different four year time frames after the switch, established no critical effect in the virtual market performance of the organization. According to Klammer's (1973) effort, different variables were found to affect the change of firm performance.

Mooi and Mustapha (2001) have inspected on level of trouble of capital arranging practice and in addition organizations' execution. Utilize a case of 42 associations, 19 per cent used regular capital arranging procedures while 43 per cent really pervasive strategies. To look at the relationship level, they connected out a t-test. Their findings set up the way that level of capital arranging advancement did not essentially control organization execution using ROA and EPS. When all is said in done, the utilization of predominant capital planning choices ought to build up the suitability of the company's' hypotheses essential initiative. Thusly their examination disregarded to declare with the recommendation.

Kadondi (2002) studied capital planning choices applied by firms listed at NSE and how the organization's and directors qualities influence use of an express framework. With a case volume of 43 firms, 65 per cent reacted to survey. His outcomes built up that 85% do capital arranging in steps in any case countless respondents overlooked the essential level of capital arranging. Of these, 31 per cent used the payback approach, 27% connected NPV while 23% were utilizing the IRR strategy.

Gilbert (2005) posited that utilization of capital planning choices and also their association with firm productivity on South African amassing companies. An example of 318 organizations was diagramed. The rate of reaction was 37 per cent. The

examination attempted the importance and in addition results of payback approach, bookkeeping rate of return, net present esteem and interior rate of return. Profit for resource is utilized as a measure of the organizations' gainfulness. This investigation uncovered that 15% of the compny's used the payback strategy, 8% reducing techniques while the rest used a mix of both. Regardless of the way that the administrators know about the benefits of using the reducing techniques, their utilization hasn't yet been completely executed.

Yao (2006) considered the usage of capital arranging decisions and their effect on advantage in China and Netherlands They researched 250 Dutch and 300 Chinese companies. The 87 associations tended to totally. Out of the 42 and 45 were Dutch and Chinese firms, correspondingly. Incredibly, these outcomes endorsed that 49% CFOs Chinese firms utilize the NPV procedure against 9 % who utilize Traditional Investment Methods. In Dutch, 89% of the associations utilize Net Present Value venture strategies while 11% utilize non-marked down techniques. Their investigation connected profit for advantages for measure gainfulness. The outcomes set up that in the two states, propelled capital planning strategies particularly IRR and NPV had an idealistic relationship with return on assets (ROA) while the standard methods represented a unimportant connection.

Khakasa (2009) endeavored to give experimental evidence on financial practices in the Kenyan by assessing IT ventures. The outcomes of the appraisal indicated that the most prevalent investment assessment method utilized as a part of Kenyan banks were Cost Benefit Analysis, chance evaluation, contention, and furthermore Payback Period and quantifiable profit. The less favored strategy is Internal Return Rate, PC based systems (CBT) and Net Present Value. Among the 41 banks chosen, an entirety

of 25 responses was obtained i.e. 61% of the aggregate populace. All reacting establishment affirmed utilization of financial strategies to evaluate their ventures and this favored technique is money saving advantage examination. Other than Payback Period and Return on Investment was both utilized by 60 per cent of the reacting associations. Only 8 per cent of the keeping cash, foundations used no short of what one of the discounting techniques. NPV was seen to be used by 8 per cent of the financial institution, while Internal Rate of Return is used by none of the responding banks. All around, the examination deduced that banks had confined usage of discounting techniques and in addition making issues on the degree which the utilization of Money Streams to assess future exercises.

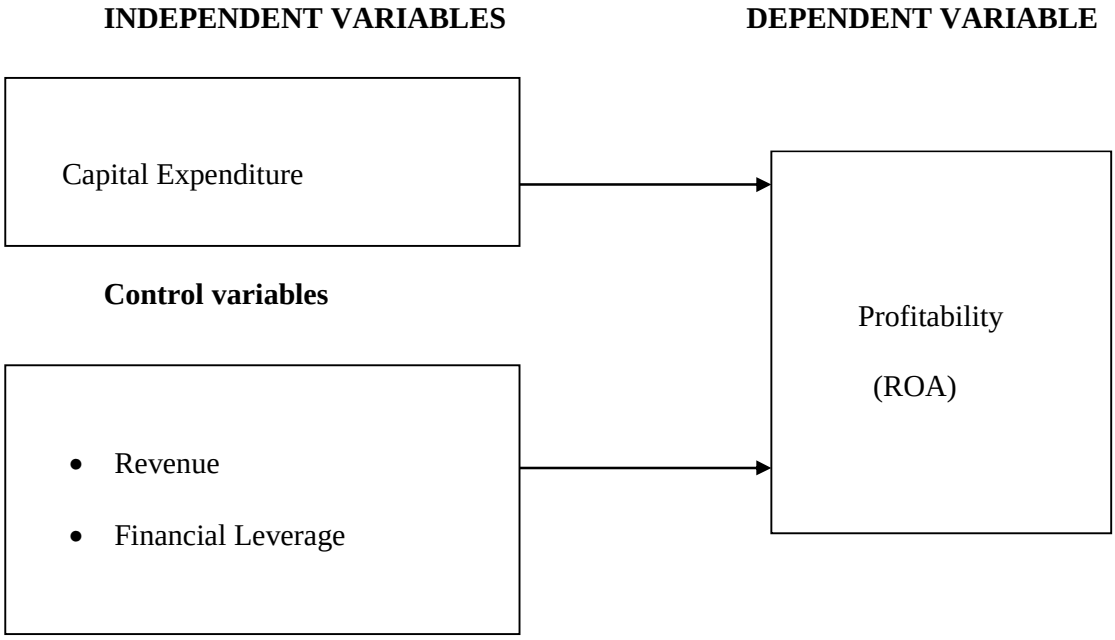
Olawale (2010) led an assessment about the company's that makes operations of complex speculation assessment procedures in venture options. The examination test estimate was 124 companies. The response rate was 39% demonstrating the complex venture examination strategies applied in speculation choices. Moore & Reichert (1989) contemplated 500 US companies employing present day logical instruments and financial linked strategies. In general, companies that acquire difficult capital planning strategies can do well to normal monetary implementation, particularly companies that employed present day stock management strategies and Internal Rate of Return (IRR) revealed unrivaled money related execution against those organizations utilizing credulous techniques.

Kadondi (2016) determined the capital planning methods employed by organizations recorded at NSE and the routes in which firms and manager's qualities influence the use of an express framework. With an example size of 43 firms, 65% responded to survey. The results indicated that 85% do capital arranging in steps however countless

respondents neglected the vital periods of capital arranging. From the findings, 31 per cent used payback approach, 27% NPV though 23% utilized on IRR framework.

2.5 Conceptual Framework

A conceptual framework is a tool that depicts the correlation involving the dependent variable and the independent variable (Kombo and Tromp, 2009). Thus providing the understanding of the subsequent findings by showing the relationship between two variables. The conceptual framework in this study shows how the capital expenditure decisions have an effect on profitability of the firm.



Source: Researcher (2017)

2.6 Literature Review Summary

The key goal of this study is to establish the consequence of Capital Budgeting decisions on profitability amongst firms listed at NSE. The reviewed literature studies have depicted that there is a correlation involving use of Capital Budgeting Techniques (CBT) and firm's performance. The studies have disclosed that use of capital budgeting methods, specifically IRR and NPV do have a positive relationship

with firms profitability. However, similar studies have showed a negative relationship which amounts to contradicting results. Locally, the studies reviewed by Khakasa (2009); Kadondi (2002); Olawale et al. (2010) and Kadondi (2016) dealt with application of investment appraisal methods in listed firms and banking sector. The findings showed that discounted cash flow method is less being used as compared to non-discounted cash flow methods. It's due to these arising conflicts in the reviewed literature that this study seeks to address.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter details the methodology applied by the researcher in this study. The sections presented include research design, population and sample descriptions, data gathering as well as data examination.

3.2 Research Design

Research design is a strategy that shows the way data can be collected for analysis or valuation that entails categorizing the information collection approach(s), the tools applicable and how these tools can be managed, and the ways the data can be planned as well as scrutinized (Kisilu et al. 2006). According to Mutuku (2014), a research design is the observation, recording, as well as analyzing the backdrop, growth, current circumstances as well as ecological relations of one or extra groups, individuals, entities, institutions, and communities steps of outlines in relative to internal as well as external pressures.

The study employed an expressive design to conclude the capital budgeting decisions as well as their effect on profitability in organizations listed at the Nairobi Stock Exchange. It is greatly suitable in illuminating or surveying the reality of two or extra variables at a known time period as well as giving the researcher a chance to gather appropriate data to convene the goal(s) of the study. The researcher followed related studies that applied this plan like (Klammer, 1973) and (Moore & Reichert, 1989).

3.3 Study Population

Population entails the whole group of individuals, proceedings or items with similar recognizable characteristics (Mugenda & Mugenda 2003). It is the collective of all

that matches to a specified requirement. The population aimed was 66 firms listed in the NSE as at 31st December 2016. These firms signify the major economic sectors in Kenya. Additionally, they are openly listed as well as publish their fiscal annual information; therefore information regarding them will be easily obtainable.

The study employed a survey, since the NSE have only 66 firms listed, hence the entire population of the firms was figured out in the study. Accordingly, there is no sampling process applicable. The study will cover from 2012-2016 for during this period both the present as well as sufficiently long for any Capital decions conclusion to be taken, acknowledged and results perceived. Prior examinations have encased a shorter day and age for instance the investigation by (Axelsson, 2002, & Farragher, 2001).

3.4 Collection of Data

The study used secondary facts. And the data was drawn from the available financial firms' records. These were acquired from NSE documentation as well as Capital Markets Authority (CMA). All the variables on capital budgeting decisions and profitability will be captured, with the use of data collection guide; the researcher will extract the secondary data that will be relevant to the study.

3.5 Analysis of Data

The Data drawn from NSE was examined. The profitability of the organizations in this research is calculated by use of a model initially utilized by (Farragher, 2001). This model is a various decline replica to scrutinize the correlation connecting Capital Budgeting decisions as well as productivity of institutions. According to the findings by Klammer (1973), it was shown that the quantity of complexity is embodied through the application of the DCF methods as well as integrating risk in the study.

The following equation is given to the model:

$Y = \alpha + \beta 1\ X1 + \beta 2X2 + \beta 3X3 + \varepsilon$

Where:

Y = Profitability as measured by ROA

α = constant (y intercept)

X1= Capital Expenditure as measured by log capital expenditures

X2= Revenue as measured by log of revenue

X3= Financial leverage as measured by debt ratio

β1, β2, β3= Coefficients of regression

ε = Error term

3.6 Diagnostic Tests

Linearity show that two variables X and Y are related by a mathematical equation Y=bX where c is a constant number. The linearity test was obtained through the scatter plot testing or F-statistic in ANOVA. Normality is a test for the assumption that the residual of the response variable are normally distributed around the mean. This was determined by Shapiro-walk test or Kolmogorov-Smirnov test. Autocorrelation is the measurement of the similarity between a certain time series and a lagged value of the same time series over successive time intervals. It was tested using Durbin-Watson statistic (Khan, 2008).

Multicollinearity is said to occur when there is a nearly exact or exact linear relation among two or more of the independent variables. This was tested by the determinant of the correlation matrices, which varies from zero to one. Orthogonal independent variable is an indication that the determinant is one while it is zero should there be a full linear dependence involving them and as it move towards to zero then the multicollinearity becomes extra powerful (Burns & Burns, 2008).

3.6.1 Test of Significance

To test the statistical significance the F- test and the t – test were used at 95% confidence level. The F statistic was utilized to establish a statistical significance of regression equation while the t statistic was used to test statistical significance of study coefficients.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND FINDINGS

4.1 Introduction

This chapter aimed to scrutiny the data that was gathered from CMA to set up the effect of capital budgeting decisions on productivity of listed firms at the Nairobi Securities Exchange. Using expressive statistics, relationship analysis as well as Regression Analysis, the results of the study was presented in table forms as shown in the following sections.

4.2 Response Rate

This study targeted all the 64 companies listed in Kenya as at 31st December 2016. Data was obtained from all the 64 companies representing a response rate of 100%. From the respondents, the researcher was able to obtain secondary data on Return on Assets, capital expenditure, total revenue and leverage.

4.3 Diagnostic Tests

The study looked for data that would be able to achieve the objectives of the research. The data gathered from NSE annual reports and individual firm's financial statements was cross checked for errors to measure the validity of the data sources. The study assumed a 95 percent confidence interval or 5 percent significance level (both leading to identical conclusions) for the data used. These values helped to verify the truth or the falsity of the data. Thus, the closer to 100 percent the confidence interval (and thus, the closer to 0 percent the significance level), the higher the accuracy of the data used and analyzed is assumed to be.

The researcher carried out diagnostic tests on the collected data. The null hypothesis for the test was that the secondary data was not normal. If the p-value recorded was more than 0.05, the researcher would reject it. The outcomes of the test are as shown in Table 4.3.

Table 4.1: Normality Test

Profitability	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Capital exp.	.149	320	.300	.857	320	.853
Revenue	.172	320	.300	.869	320	.723
Leverage	.165	320	.300	.880	320	.784
a. Lilliefors Significance Correction						

Source: Research Findings (2017)

Both Kolmogorov-Smirnova and Shapiro-Wilk tests recorded o-values greater than 0.05 which implies that the research data was usually disseminated and therefore the null suggestion was rejected. The data was therefore appropriate for use to conduct parametric tests such as Pearson's correlation, regression analysis and analysis of variance.

4.4 Descriptive Analysis

Descriptive statistics gives a presentation of the average, maximum and minimum values of variables applied together with their standard deviations in this study. Table 4.1 indicates the descriptive statistics for the variables applied in the study. An analysis of all the variables was obtained using SPSS software for the period of five years (2012 to 2016). ROA which was the dependent variable in this study had a

minimum of -0.54288, maximum of 0.38886, mean of 0.047118 and a SD(Standard Deviation) of 0.088958.Capital expenditure had a minimum of 3.94529, maximum of 11.24666, a mean of 77.231521 with a standard deviation of 1.197204. Revenue resulted to a minimum of 0.0033, maximum of 128.5221, a mean of 5.870472 with a Standard Deviation of 12.73499. Leverage had a minimum of 0.00075, maximum of 4.27983,a mean of 0.602141 and SD(Standard Deviation) of 0.321301.

Table 4.2: Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Capital Expenditure	320	3.94529	11.24666	7.231521	1.197204
Revenue	320	0.0033	128.5221	5.870472	12.73499
LEVERAGE	320	0.00075	4.27983	0.602141	0.321301
ROA	320	-0.54288	0.38886	0.047118	0.088958

Source: Research Findings (2017)

4.5 Correlation Analysis

Correlation study is employed to determine if there is a link involving two variables which lies between (-) strong pessimistic correlation while (+) perfect optimistic correlation. Pearson correlation was employed to analyze the level of association between profitability of listed companies in Kenya and the independent variables for this study (capital expenditure, revenue and leverage).

The study found out that there was a positive and statistically significant correlation (r = .585, p = .000) between capital expenditure and ROA. The study also realized an optimistic and important correlation involving revenue as well as profitability of listed

companies as evidenced by (r = .564, p = .000). Leverage was found to have a strong negative but significant association with profitability as evidenced by (r = -.670, p = .000). Although the independent variables had an association to each other, the association was not strong to cause Multicollinearity as all the r values were less than 0.70. This implies that there was no Multicollinearity among the independent variables and therefore they can be used as determinants of financial performance of listed companies in regression analysis.

Table 4.3: Correlation Analysis

		ROA	Capital Expenditure	Revenue	LEVERAGE
ROA	Pearson Correlation	1	.585**	.564**	-.670**
	Sig. (2-tailed)		.000	.000	.000
	N	320	320	320	320
Capital Expenditure	Pearson Correlation	.585**	1	.241**	-.424**
	Sig. (2-tailed)	.000		.000	.000
	N	320	320	320	320
Revenue	Pearson Correlation	.564**	.241**	1	-.243**
	Sig. (2-tailed)	.000	.000		.000
	N	320	320	320	320
Leverage	Pearson Correlation	-.670**	-.424**	-.243**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	320	320	320	320
**. Correlation is significant at the 0.01 level (2-tailed).					

Source: Research Findings (2017).

4.6 Regression Analysis

Profitability of listed companies in Kenya was regressed against three predictor variables; capital expenditure, revenue and leverage. The regression scrutiny was carry out at 5% importance level. The study obtained the model summary statistics as shown in table 4.4.

Table 4.4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.833[a]	.694	.691	.0495

Source: Research Findings (2017).

R squared, being the coefficient of resolve indicates the deviations in the response variable that is as a result of changes in the predictor variables. From the outcome in table 4.4, the value of R square was .694, a discovery that 69.4 percent of the deviations in profitability of listed companies is caused by changes in capital expenditure, revenue and leverage of the firms. Other variables not included in the model justify for 30.6 percent of the variations in profitability of listed companies. Also, the results revealed that there exists a strong relationship among the selected independent variables and the profitability as shown by the correlation coefficient (R) equal to .833[a].

Table 4.5: Variance Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.752	3	.584	238.747	.000[b]
	Residual	.773	316	.002		
	Total	2.524	319			
a. Dependent Variable: ROA						
b. Predictors: (Constant), LEVERAGE, Revenue, Capital Expenditure						

Source: Findings of Research (2017)

The importance value is 0.000 which is less than p=0.05. This implies that the model was statistically significant in forecasting the ways in which capital expenditure, revenue and debt leverage affects profitability of listed companies in Kenya. The researcher used t-test to determine the significance of each individual variable used in this study as a predictor of financial performance of listed companies. The p-value under sig. column was used as an indicator of the implications of the correlation involving the dependent as well as the independent variables. At 95% confidence level, a p-value of less than 0.05 was interpreted as a measure of statistical implication. As such, a p-value above 0.05 indicates a statistically insignificant correlation involving the dependent as well as the independent variables. The outcomes is as shown below in table 4.6

Table 4.6: Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.056	.022		-2.583	.010
	Capital Expenditure	.022	.003	.302	8.686	.000
	Revenue	.013	.002	.382	6.765	.000
	LEVERAGE	-.124	.010	-.449	-12.904	.000
a. Dependent Variable: ROA						

Source: Research Findings (2017)

From the above findings, it is evident that capital expenditure and revenue produced positive and statistically significant values for this study (high t-values (8.686 and 6.765), $p < 0.05$) respectively. Leverage produced a negative but statistically important values for this study (t= -12.904, p= 0.000).

The following regression equation was estimated:

$Y = -.056 + .022X_1 + .013X_2 - .124X_3$

Where,

Y = Financial performance measured by ROA

X_1= Capital expenditure

X_2 = Revenue

X_3 = Leverage

On the estimated regression model above, the constant = -.056 shows that if selected dependent variables (capital expenditure, revenue and debt leverage) were rated zero, Return on assets of listed companies would be -.056. A unit increase in capital expenditure means an increase in profitability by .022. An element increase in revenue means an increase in profitability by .013 while a unit increase in leverage means a decrease in profitability by - .124 units.

4.7 Discussion of Research Findings

The study sought to establish the outcomes of capital budgeting resolutions on profitability of firms listed in Kenya. Capital expenditure as calculated by natural logarithm of total assets, revenue as considered by natural logarithm of total revenue and leverage as measured by debt ratio were the independent variables while financial performance as considered by return on assets was the dependent variable. The effect of each of the independent variable on the dependent variable was analyzed in terms of strength and direction.

The Pearson correlation coefficients between the variables revealed that a strong positive correlation exists between capital expenditure and profitability. The results are in agreement with Al Farouque, et al (2005), who found that capital expenditure had a positive influence on corporate performance as measure by Return on Assets. (ROA). The relationship between revenue and profitability was found to be strong and positive. The study also demonstrated that it exist a strong negative relationship involving leverage and profitability. Gill, et al., (2011) that there is a positive connection between here and now obligation to add up to resources and gainfulness, long haul obligation to add up to resources and benefit, and between add up to obligation to add up to resources and productivity.

However, the results do not agree with Margaritis and Psillaki (2010) who found that leverage has a positive effect on financial performance. Increasing leverage helps firms ensure that managers are running the business more efficiently thus leading to increased profitability and financial performance. According to Coricelli, Jarrell, and Kim (2012) found that there is a positive relation between leverage and total productivity growth to a certain point, beyond which the relationship turns negative.

The model summary revealed that the independent variables: total capital expenditure, revenue and debt leverage explains 69.4% of changes in the dependent variable as indicated by the value of R^2 which implies that the are other factors not included in this model that account for 30.6% of changes in profitability of listed companies. The results contrast that of Wachanga, (2014) that capital expenditure, leverage and firm size influence financial performance positively. The model is fit at 95% level of confidence since the F-value is 238.747. This ascertains that a general multiple regression models is statistically important, because it is an appropriate forecast

model for illuminating the ways in which the chosen free variables influences profitability of listed companies in Kenya.

The results concur with Yao (2006) who considered the use of capital budgeting decisions and their effect on profitability in China and Netherlands. They analyzed 250 Dutch and 300 Chinese companies. The 87 firms responded fully. Their study applied return on assets to measure profitability. The results shown that in the two states, superior capital budgeting methods especially NPV as well as IRR had a optimistic correlation with Return On Asset (ROA) whereas the customary techniques confirmed an insignificant correlation.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter summarizes the findings of the previous chapter, conclusion, limitations encountered during the study. This chapter also elucidates the policy recommendations that policy makers can implement to achieve the expected profitability of listed firms in Kenya. Lastly the chapter presents suggestions for further research which can be useful by future researchers.

5.2 Summary of Findings

The study wanted to examine the outcome of capital budgeting resolution on profitability of listed firms in Kenya. The independent variables for the study were capital expenditure, revenue and leverage. The study adopted a descriptive cross-sectional research design. Secondary data was obtained from data collected from NSE annual reports, firm's financial statements and analyzed using SPSS software version 21. The study used annual data for the 64 listed companies in Kenya covering a period of five years from January 2012 to December 2016.

From the results of correlation analysis, a strong positive correlation exists between capital expenditure and profitability. The relationship between revenue and profitability was found to be strong and positive. The research also indicated that it exist a feeble negative relationship between leverage and profitability.

The co-efficient of determination R-square value was 0.694 implying that the predictor variables selected for this study explains 69.4% of changes in the dependent variable. This means that there are other factors not included in this model that account for 69.4% of changes in profitability of listed companies. The model is fit at 95% level of confidence since the F-value is 238.747.

This ascertains that a general multiple regression model is statistically important, because it is an appropriate forecast model for illuminating the ways in which the chosen free variables influences profitability of listed companies in Kenya.

The regression results show that when all the independent variables selected for the study have zero value, profitability of listed companies would be -.056. It is also noted that if one unit increases in capital expenditure means an increase in profitability by .022. A unit raise in revenue translates to an increase in profitability by 0.013 while an increase of one unit in leverage, means a decrease in profitability by -0.124.

5.3 Conclusion

Base on the research outcomes, the study conclude that profitability of listed companies in Kenya is significantly affected by capital expenditure, revenue and leverage of the companies. The study found that capital expenditure had a positive effect on profitability of listed companies. The study therefore concludes that capital expenditure by listed firms leads to an increase in profitability. The study found that revenue had an optimistic and important consequence on productivity and therefore it is concluded that higher levels of revenue leads to an increase in productivity. Leverage was realized to demonstrate a strong negative but statistically significant correlation with productivity and this means if leverage increases, productivity

decrease. This study concludes that independent variables selected for this study capital expenditure, revenue and leverage influence to a large extent profitability of listed companies in Kenya. It is therefore sufficient to conclude that these variables significantly influence profitability as shown by the p value in ANOVAs summary. The fact that the three independent variables explain 69.4% of changes in profitability imply that the variables not included in the model explain 30.6% of changes in profitability.

This finding concurs with Yao (2006) who considered the use of capital budgeting decisions and their effect on profitability in china and Netherlands. They analyzed 250 Dutch and 300 Chinese firms. The 87 firms responded fully. Their study applied return on assets to measure profitability. The results confirmed that in the two states, Advanced Capital Budgeting methods especially NPV and IRR had a optimistic correlation with ROR (Return On Resources) while the customary techniques established an unimportant correlation.

5.4 Recommendations

The study established that there was a positive influence of capital expenditure on productivity of firms listed in NSE in Kenya. This research recommends adequate measures should be put in place by managers of these firms to improve and grow their profitability through capital expenditure. Listed firms and all firms in general should practice capital expenditure that will lead to an increase in profitability because this translates to improved shareholder wealth which is the main goal of a firm.

The study found out that a positive relationship exists between profitability and revenue position. This study recommends that a comprehensive assessment of listed firm’s immediate revenue streams should be undertaken to ensure the company is

operating at sufficient levels of revenues that will lead to improved profitability of firms. This is because a firm's revenue generated is of high importance since it significantly influences the firm's profitability.

Leverage was also realized to have significant strong outcomes on productivity of listed firms. The study recommends that when firms are setting their capital structure they should strike a balance between the tax savings benefit of debt and bankruptcy costs associated with borrowing. High levels of debt has been found to reduce profitability of listed firms from the findings of this study and so firm managers should maintain debt in levels that do not impact negatively on profitability to ensure the goal of maximizing shareholders' wealth is attained.

5.5 Study Limitations

The scope of this study was for 2012-2016. It has not been determined if the results would hold for a longer study period. Furthermore it is uncertain whether similar findings would result beyond 2016. A longer study period is more reliable as it will take into account major happenings not accounted for in this study.

One of the limitations of the study is the quality of the data. It is difficult to conclude from this research whether the findings present the true facts about the situation. The data that has been used is only assumed to be accurate. The metrics used may keep on varying from one year to another subject to prevailing condition. The study employed secondary data, which had previously been acquired and was in the public observation, as oppose to first hand data which has not been critiqued. The study also considered selected determinants and not all the factors affecting profitability of listed firms mainly due to limitation of data availability.

For data analysis purposes, the researcher applied a multiple linear regression model. Due to the shortcomings involved when using regression models such as erroneous and misleading results when the variable values change, the researcher cannot be able to generalize the findings with certainty. If more and more data is added to the functional regression model, the hypothesized correlation involving two or additional variables may not hold.

5.6 Further Research Suggestions

This study aimed on capital budgeting decisions and profitability of listed companies in Kenya and relied on secondary data. A research study where data gathering depends on main information i.e. in depth questionnaires as well as interviews covering all the 64 listed companies in Kenya is recommended so as to compliment this research.

The study was not exhaustive of the independent variables affecting profitability of listed companies in Kenya and this study recommends that further studies be conducted to incorporate other variables like management efficiency, growth opportunities, corporate governance, industry practices, age of the firm, political stability and other macro-economic variables. Establishing the effect of each variable on profitability of listed companies will enable policy makers know what tool to use when maximizing shareholder's wealth.

The study concentrated on the last five years since it was the most recent data available. Future studies may use a range of many years e.g. from 2000 to date and this can be helpful to confirm or disapprove the findings of this study. The study limited itself by focusing on listed firms in Kenya. The recommendations of this study are that further studies be conducted on other non-listed firms operating in Kenya.

Finally, due to the shortcomings of regression models, other models such as the Vector Error Correction Model (VECM) can be used to explain the various interaction involving the variables.

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Appendix I: Data set

CAPITAL BUDGETING DECISIONS OF THE FIRMS LISTED IN NSE FROM JANUARY 2012- DECEMBER 2016

Year	COMPANY	ROA	Capital Expenditure	Revenue	Leverage
2012	Athi river mining	0.04549	3.94529	0.009	4.27983
2013	Athi river mining	0.04046	4.02847	0.0189	1.26845
2014	Athi river mining	0.04541	4.05859	0.1125	1.26845
2015	Athi river mining	0.04622	4.07716	0.2331	1.03275
2016	Athi river mining	0.05608	4.10369	0.4272	1.03275
2012	Bamburi	0.12351	4.62356	0.4308	1
2013	Bamburi	0.09522	4.62356	0.5793	1
2014	Bamburi	0.08539	4.88892	0.738	0.98059
2015	Bamburi	0.11343	4.89621	0.7917	0.98059
2016	Bamburi	0.17489	5.08874	0.8424	0.96886
2012	Barclays	0.03249	5.17219	0.8988	0.96886
2013	Barclays	0.03714	5.26022	1.1052	0.91188
2014	Barclays	0.03687	5.96851	1.2084	0.91188
2015	Barclays	0.04729	5.97343	1.2927	0.90069
2016	Barclays	0.04833	6.00469	1.3386	0.90069
2012	Car & General	0.02367	6.00469	1.6125	0.89241
2013	Car & General	0.04396	6.06097	1.7052	0.89241
2014	Car & General	0.04576	6.17946	1.9449	0.88268
2015	Car & General	0.04672	6.24055	1.998	0.88268
2016	Car & General	0.0519	6.24055	2.0853	0.87635
21	Carbacid	0.13249	6.25931	2.1192	0.87635
22	Carbacid	0.19369	6.29875	2.1261	0.87552
23	Carbacid	0.21572	6.3038	2.1924	0.87552
24	Carbacid	0.1934	6.3038	2.403	0.87457
25	Carbacid	0.17368	6.34329	2.4366	0.87457
26	Crown Berger	0.00754	6.34329	2.4402	0.87155
27	Crown Berger	0.00512	6.34544	2.4528	0.87155
28	Crown Berger	0.0726	6.35377	2.5113	0.87129
29	Crown Berger	0.05914	6.36179	2.5599	0.87129
30	Crown Berger	0.05823	6.36567	2.601	0.86677
31	East Africa Cables	0.04069	6.40366	2.7528	0.86677
32	East Africa Cables	0.04324	6.40366	2.8026	0.86585
33	East Africa Cables	0.05848	6.42047	2.9961	0.86535
34	East Africa Cables	0.08355	6.46915	3.1833	0.85965

35	East Africa Cables	0.06303	6.47257	3.1962	0.85711
36	E.A Portland	-0.02429	6.47257	3.3102	0.85605
37	E.A Portland	-0.0246	6.49486	3.3615	0.85488
38	E.A Portland	0.11004	6.52827	3.4062	0.85313
39	E.A Portland	-0.06959	6.53143	3.5361	0.85176
40	E.A Portland	0.04175	6.54426	3.5733	0.84772
41	Eveready	0.38886	6.54426	3.5943	0.84439
42	Eveready	-0.19094	6.54559	3.6159	0.84342
43	Eveready	0.04828	6.54559	3.6285	0.84342
44	Eveready	0.0609	6.55287	3.6774	0.84178
45	Eveready	-0.12266	6.56449	3.7833	0.84109
46	Kakuzi	0.11693	6.57026	3.8763	0.83992
47	Kakuzi	0.04153	6.57417	3.8955	0.83992
48	Kakuzi	0.04439	6.58156	3.9153	0.83982
49	Kakuzi	0.11441	6.58176	4.0212	0.83748
50	Kakuzi	0.16881	6.58578	4.0695	0.8373
51	Kengen	0.192	6.58629	4.0962	0.83512
52	Kengen	0.0113	6.5863	4.1523	0.83512
53	Kengen	0.02783	6.58799	4.2648	0.83231
54	Kengen	0.0173	6.58799	4.3764	0.8322
55	Kengen	0.01292	6.61297	4.392	0.8322
56	Kenolkobil	0.09883	6.61297	4.4652	0.83148
57	Kenolkobil	0.04563	6.61666	4.4916	0.83092
58	Kenolkobil	0.01986	6.61666	4.5318	0.83092
59	Kenolkobil	-0.19228	6.65499	4.6272	0.82822
60	Kenolkobil	0.07121	6.65697	4.6278	0.82723
61	KPLC	0.02788	6.65851	4.7457	0.82351
62	KPLC	0.02933	6.69836	4.7556	0.82037
63	KPLC	0.02457	6.74613	4.9203	0.81978
64	KPLC	0.03442	6.75655	5.0925	0.81834
65	KPLC	0.0352	6.79579	5.1366	0.81815
66	KQ	-0.1878	6.7995	5.1483	0.81595
67	KQ	-0.02275	6.80688	5.1765	0.81437
68	KQ	-0.06411	6.8331	5.259	0.81011
69	KQ	0.02144	6.83789	5.3544	0.80979
70	KQ	0.04493	6.89705	5.4963	0.80279
71	Safaricom	0.20306	6.90453	5.679	0.79616
72	Safaricom	0.17101	6.91996	5.7792	0.76511
73	Safaricom	0.13612	6.93811	6.0159	0.76295
74	Safaricom	0.10359	6.95051	6.3465	0.74659
75	Safaricom	0.11558	6.95686	6.5559	0.74559
76	Sameer	-0.01173	6.97598	6.5892	0.74478
77	Sameer	-0.01735	7.08054	7.0125	0.74478
78	Sameer	0.10936	7.14541	7.059	0.73877

79	Sameer	0.05582	7.17405	7.0644	0.73582
80	Sameer	0.03102	7.19638	7.0653	0.73582
81	Sasini	0.10866	7.20533	7.2711	0.72958
82	Sasini	0.00304	7.20773	7.5534	0.72316
83	Sasini	0.01013	7.23998	7.5594	0.72316
84	Sasini	-0.01391	7.28922	7.5687	0.70609
85	Sasini	0.0476	7.31209	7.659	0.70255
86	Standard Group	-0.07478	7.31209	8.0649	0.70255
87	Standard Group	0.05376	7.3373	8.2878	0.70197
88	Standard Group	0.04581	7.33881	8.5065	0.70197
89	Standard Group	0.05235	7.33937	8.9943	0.69704
90	Standard Group	0.04195	7.37731	9.069	0.69629
91	Total Kenya	0.04719	7.37867	0.0033	0.69348
92	Total Kenya	0.04376	7.43061	0.0045	0.69341
93	Total Kenya	0.03282	7.43061	0.0045	0.69004
94	Total Kenya	-0.00613	7.44904	0.0051	0.68722
95	Total Kenya	-0.00203	7.47283	0.0057	0.67565
96	TransCentury	-0.08236	7.47283	0.0069	0.67565
97	TransCentury	-0.11703	7.50339	0.0081	0.67078
98	TransCentury	0.02628	7.51434	0.009	0.67013
99	TransCentury	0.0337	7.52507	0.009	0.66847
100	TransCentury	0.02834	7.52507	0.0099	0.66387
101	Uchumi	-0.54288	7.56717	0.0105	0.66387
102	Uchumi	0.05582	7.56717	0.0123	0.65476
103	Uchumi	0.06405	7.61232	0.0138	0.65476
104	Uchumi	0.07181	7.61269	0.0138	0.6503
105	Uchumi	0.11568	7.61269	0.0189	0.6503
106	Unga Group	0.07056	7.63363	0.0195	0.6458
107	Unga Group	0.04769	7.63363	0.0348	0.6458
108	Unga Group	0.06108	7.63385	0.036	0.63715
109	Unga Group	0.05432	7.63385	0.0453	0.63715
110	Unga Group	0.07726	7.66252	0.1125	0.62436
111	NIC Bank	0.02308	7.67568	0.1797	0.62436
112	NIC Bank	0.02824	7.69646	0.2088	0.61537
113	NIC Bank	0.02674	7.71547	0.2172	0.61012
114	NIC Bank	0.02803	7.71547	0.2331	0.6081
115	NIC Bank	0.03427	7.73707	0.3213	0.6081
116	National Bank	-0.00933	7.76757	0.4272	0.60801
117	National Bank	0.00707	7.78506	0.4308	0.60108
118	National Bank	0.01202	7.79842	0.5793	0.59822
119	National Bank	0.01087	7.82568	0.738	0.58661
120	National Bank	0.02252	7.82708	0.738	0.58226
121	KCB Bank	0.03516	7.83673	0.7917	0.58032
122	KCB Bank	0.03436	7.85527	0.8424	0.57342
123	KCB Bank	0.03669	7.89754	0.8424	0.57051

124	KCB Bank	0.03316	7.9664	0.8988	0.56967
125	KCB Bank	0.0332	8.03482	0.8988	0.56881
126	I&M Bank	0.03461	8.05635	0.0189	0.56053
127	I&M Bank	0.03249	8.07874	0.1125	0.54965
128	I&M Bank	0.03523	8.08301	0.2331	0.54965
129	I&M Bank	0.02846	8.086	0.4272	0.5446
130	I&M Bank	0.03214	8.09023	0.4308	0.5446
131	HFCK	0.01652	8.09844	0.5793	0.53769
132	HFCK	0.016	8.11011	0.7917	0.53769
133	HFCK	0.021	8.12753	1.1052	0.53189
134	HFCK	0.01815	8.12905	1.1052	0.53189
135	HFCK	0.01952	8.15598	1.2084	0.52906
136	Equity Bank	0.0244	8.1637	1.2084	0.52494
137	Equity Bank	0.03303	8.17659	1.2927	0.52494
138	Equity Bank	0.04781	8.19578	1.2927	0.52151
139	Equity Bank	0.04968	8.20681	1.3386	0.51588
140	Equity Bank	0.0526	8.21257	1.3386	0.51236
141	Co-operative Bank	0.0257	8.21702	1.6125	0.50765
142	Co-operative Bank	0.00997	8.21955	1.6125	0.49525
143	Co-operative Bank	0.03939	8.22611	1.7052	0.48576
144	Co-operative Bank	0.03845	8.24836	1.7052	0.47916
145	Co-operative Bank	0.03186	8.25651	1.9449	0.47916
146	CFC Stanbic	0.01827	8.25768	1.9449	0.47512
147	CFC Stanbic	0.03142	8.27571	1.998	0.47483
148	CFC Stanbic	0.0284	8.29291	1.998	0.47177
149	CFC Stanbic	0.02102	8.30295	2.0853	0.46662
150	CFC Stanbic	0.01092	8.31901	2.0853	0.46168
151	Nation Media	0.16312	8.34264	2.1192	0.45895
152	Nation Media	0.20179	8.36402	2.1192	0.45438
153	Nation Media	0.22135	8.38591	2.1261	0.44755
154	Nation Media	0.2351	8.39326	2.1261	0.43681
155	Nation Media	0.22762	8.3983	2.1924	0.43435
156	BOC Kenya	0.02949	8.44011	2.1924	0.41191
157	BOC Kenya	0.09982	8.44362	2.403	0.40868
158	BOC Kenya	0.07696	8.51946	2.403	0.40754
159	BOC Kenya	0.09921	8.53077	2.4366	0.39366
160	BOC Kenya	0.0829	8.53466	2.4366	0.38245
161	EABL	0.11895	8.53469	2.4402	0.37938
162	EABL	0.1091	8.56587	2.4402	0.3771
163	EABL	0.1186	8.59201	2.4528	0.37244

164	EABL	0.20493	8.63151	2.4528	0.34401
165	EABL	0.18133	8.6905	2.5113	0.34245
166	Eaagads Ltd	0.04549	8.74671	2.5113	0.33564
167	Eaagads Ltd	0.04046	11.03368	2.5599	0.33556
168	Eaagads Ltd	0.04541	11.14984	2.5599	0.32217
169	Eaagads Ltd	0.04622	11.16054	2.601	0.3156
170	Eaagads Ltd	0.05608	11.24666	2.601	0.31411
171	Williamson Tea	0.12351	4.62356	2.7528	0.31198
172	Williamson Tea	0.09522	7.61269	2.7528	0.30556
173	Williamson Tea	0.08539	7.63363	2.8026	0.29505
174	Williamson Tea	0.11343	7.63385	2.8026	0.2948
175	Williamson Tea	0.17489	7.52507	2.9961	0.29322
176	Kapchorua Tea	0.03249	4.62356	2.9961	0.29322
177	Kapchorua Tea	0.03714	7.61269	3.1833	0.28962
178	Kapchorua Tea	0.03687	7.63363	3.1833	0.28962
179	Kapchorua Tea	0.04729	7.63385	3.1962	0.28534
180	Kapchorua Tea	0.04833	7.52507	3.1962	0.28294
181	Limuru Tea	0.02367	6.47257	3.3102	0.28294
182	Limuru Tea	0.04396	6.40366	3.3102	0.28008
183	Limuru Tea	0.04576	6.89705	3.6774	0.27975
184	Limuru Tea	0.04672	6.8331	3.6774	0.27969
185	Limuru Tea	0.0519	6.79579	3.7833	0.27843
186	Marshalls	0.13249	6.69836	3.7833	0.27843
187	Marshalls	0.19369	6.65697	3.5943	0.27783
188	Marshalls	0.21572	6.65499	3.6285	0.26956
189	Marshalls	0.1934	6.58578	3.5943	0.26877
190	Marshalls	0.17368	6.47257	3.4062	0.26725
191	Stan Chart	0.00754	6.46915	3.6159	0.26725
192	Stan Chart	0.00512	6.40366	3.5361	0.26592
193	Stan Chart	0.0726	6.35377	3.6159	0.26147
194	Stan Chart	0.05914	6.34544	3.6285	0.24397
195	Stan Chart	0.05823	6.34329	3.3615	0.24046
196	Express	0.04069	6.34329	3.5361	0.22624
197	Express	0.04324	6.3038	3.3615	0.21883
198	Express	0.05848	6.3038	3.5733	0.21572
199	Express	0.08355	6.24055	3.4062	0.21155
200	Express	0.06303	6.24055	3.5733	0.18812
201	Nation Media	-0.02429	7.08054	3.8763	0.17888
202	Nation Media	-0.0246	7.19638	3.8763	0.17888
203	Nation Media	0.11004	7.20773	3.8955	0.16563
204	Nation Media	-0.06959	4.07716	3.8955	0.16563
205	Nation Media	0.04175	4.10369	3.9153	0.15668
206	TPS	0.38886	4.88892	3.9153	0.15668
207	TPS	-0.19094	4.89621	4.0212	0.15495
208	TPS	0.04828	5.08874	4.0212	0.14854

209	TPS	0.0609	5.17219	4.0695	0.14854
210	TPS	-0.12266	5.26022	4.0695	0.13929
211	Scan Group	0.11693	5.96851	4.0962	0.12796
212	Scan Group	0.04153	5.97343	4.0962	0.12701
213	Scan Group	0.04439	6.00469	4.1523	0.12701
214	Scan Group	0.09921	6.00469	4.1523	0.00075
215	Scan Group	0.11441	6.06097	4.2648	0.86585
216	Atlas	0.16881	6.17946	4.2648	0.86535
217	Atlas	0.192	6.17946	4.3764	0.85965
218	Atlas	0.0113	6.29875	4.3764	0.85711
219	Atlas	0.02783	6.49486	4.392	0.85605
220	Atlas	0.0173	6.52827	4.392	0.85488
221	Hutchings	0.01292	6.53143	4.4652	0.85313
222	Hutchings	0.09883	6.54426	4.4652	0.85176
223	Hutchings	0.04563	6.54426	4.4916	0.84772
224	Hutchings	0.38886	6.54559	4.4916	0.84439
225	Hutchings	0.01986	6.54559	4.5318	0.84178
226	Business Venture	-0.19228	6.55287	4.5318	0.84109
227	Business Venture	0.07121	6.56449	4.6272	0.83982
228	Business Venture	0.02788	6.57026	4.6272	0.83748
229	Business Venture	0.02933	6.57417	4.6278	0.8373
230	Business Venture	0.02457	6.58156	4.6278	0.83231
231	Jubilee	0.03442	6.58176	4.7457	0.83148
232	Jubilee	0.0352	6.58629	4.7457	0.82822
233	Jubilee	-0.1878	6.5863	4.7556	0.82723
234	Jubilee	-0.02275	6.58799	4.7556	0.82351
235	Jubilee	-0.06411	6.58799	4.9203	0.82037
236	Pan Africa	0.02144	6.61297	4.9203	0.81978
237	Pan Africa	0.04493	6.61297	5.0925	0.81834
238	Pan Africa	0.20306	6.61666	5.0925	0.81815
239	Pan Africa	0.17101	6.61666	5.1366	0.81595
240	Pan Africa	0.13612	6.65851	5.1366	0.81437
241	Umeme	0.10359	6.74613	5.1483	0.81011
242	Umeme	0.11558	6.75655	5.1483	0.80979
243	Umeme	-0.01173	6.7995	5.1765	0.80279
244	Umeme	-0.01735	6.80688	5.1765	0.79616
245	Umeme	0.10936	6.83789	5.259	0.76511
246	Kenya Re	0.05582	6.90453	5.259	0.76295
247	Kenya Re	0.03102	6.91996	5.3544	0.74659
248	Kenya Re	0.10866	6.93811	5.3544	0.74559
249	Kenya Re	0.00304	6.95051	5.4963	0.73877
250	Kenya Re	0.01013	6.95686	5.4963	0.72958
251	Liberty	-0.01391	6.97598	5.679	0.70609
252	Liberty	0.0476	7.14541	5.679	0.69704
253	Liberty	-0.07478	7.17405	5.7792	0.69629

254	Liberty	0.05376	7.20533	5.7792	0.69348
255	Liberty	0.04581	7.23998	6.0159	0.69341
256	Britam	0.05235	7.28922	6.0159	0.69004
257	Britam	0.04195	7.3373	6.3465	0.68722
258	Britam	0.04719	7.33881	6.3465	0.67078
259	Britam	0.04376	7.33937	6.5559	0.67013
260	Britam	0.03282	7.37731	6.5559	0.66847
261	CIC	-0.00613	7.37867	6.5892	0.61537
262	CIC	-0.00203	7.44904	6.5892	0.61012
263	CIC	-0.08236	7.50339	7.0125	0.60801
264	CIC	-0.11703	7.51434	7.0125	0.60108
265	CIC	0.02628	7.61232	7.059	0.59822
266	Olympia	0.0337	7.66252	7.059	0.58661
267	Olympia	0.02834	7.67568	7.0644	0.58226
268	Olympia	-0.54288	7.78506	7.0644	0.58032
269	Olympia	0.05582	7.82708	7.0653	0.57342
270	Olympia	0.06405	7.83673	7.0653	0.57051
271	Centum	0.07181	7.85527	7.2711	0.56967
272	Centum	0.11568	7.89754	7.2711	0.56881
273	Centum	0.07056	7.9664	7.5534	0.56053
274	Centum	0.04769	8.03482	7.5534	0.52906
275	Centum	0.06108	8.05635	7.5594	0.52151
276	Home Africa	0.05432	8.07874	7.5594	0.51588
277	Home Africa	0.07726	8.08301	7.5687	0.51236
278	Home Africa	0.02308	8.086	7.5687	0.50765
279	Home Africa	0.02824	8.09023	7.659	0.49525
280	Home Africa	0.02674	8.09844	7.659	0.48576
281	Kurwitu	0.02803	8.11011	8.0649	0.47512
282	Kurwitu	0.03427	8.12753	8.0649	0.47483
283	Kurwitu	-0.00933	8.12905	8.2878	0.47177
284	Kurwitu	0.00707	8.15598	8.2878	0.46662
285	Kurwitu	0.01202	8.1637	8.5065	0.46662
286	NSE	0.01087	8.17659	8.5065	0.46168
287	NSE	0.02252	8.19578	8.9943	0.45895
288	NSE	0.03516	8.20681	8.9943	0.44755
289	NSE	0.03436	8.21257	9.069	0.43435
290	NSE	0.03669	8.21702	9.069	0.40868
291	BAT	0.03316	8.21955	12.0417	0.40754
292	BAT	0.0332	8.22611	12.0417	0.39366
293	BAT	0.03461	8.24836	12.0417	0.38245
294	BAT	0.03249	8.25651	12.4251	0.37938
295	BAT	0.03523	8.25768	12.4251	0.3771
296	MUMIAS	0.02846	8.27571	12.4251	0.34401
297	MUMIAS	0.03214	8.29291	12.4431	0.34245
298	MUMIAS	0.01652	8.30295	12.4431	0.33564

299	MUMIAS	0.016	8.31901	12.4431	0.33556
300	MUMIAS	0.021	8.34264	12.9915	0.32217
301	Orchards	0.01815	8.36402	12.9915	0.3156
302	Orchards	0.01952	8.38591	12.9915	0.29505
303	Orchards	0.0244	8.39326	13.3134	0.2948
304	Orchards	0.03303	8.3983	13.3134	0.28534
305	Orchards	0.04781	8.44011	13.3134	0.28008
306	Baumann	0.04968	8.44362	13.3134	0.27975
307	Baumann	0.0526	8.51946	14.4555	0.27969
308	Baumann	0.0257	8.53077	14.4555	0.27783
309	Baumann	0.00997	8.53466	15.5481	0.26956
310	Baumann	0.03939	8.53469	15.5481	0.26877
311	Flame Tree	0.03845	8.56587	15.5481	0.26592
312	Flame Tree	0.03186	8.59201	21.0309	0.24397
313	Flame Tree	0.01827	8.63151	21.0309	0.22624
314	Flame Tree	0.03142	8.6905	21.0309	0.21883
315	Flame Tree	0.0284	8.74671	29.2506	0.21572
316	Stanlib Fahari	0.02102	11.03368	29.0506	0.18812
317	Stanlib Fahari	0.01092	11.14984	29.2506	0.15495
318	Stanlib Fahari	0.16312	11.16054	128.5221	0.13929
319	Stanlib Fahari	0.20179	11.24666	128.5221	0.12796
320	Stanlib Fahari	0.22135	4.05859	128.5221	0.01075