

**THE EFFECTS OF INVESTMENT DECISIONS ON PROFITABILITY
OF COMPANIES QUOTED AT THE NSE**

BY:

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DECLARATION

This Research Project is my original work and has not been presented to any other university for academic award

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This Management Research Project has been submitted for examination with my approval as the university supervisor

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DEDICATION

This work is dedicated in the memory of my the late parents (Samuel Barng'etuny & Elizabeth Barng'etuny) who laid a quality academic foundation for me; and to my dear husband Zakhem Laon, my son Lewis Lenana; my sisters Egla, Rael, Lilian and Margaret for their moral and financial support, encouragement and prayers throughout the duration of my studies.

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ABBREVIATIONS

ANOVA	Analysis of variance
ARR	Accounting Rate of Return
CEO	Chief Executive Officer
CFO	Chief Finance Officer
DPB	Discounted Payback Period
FDI	Foreign Direct Investment
IRR	Internal Rate of Return
MBA	Master of Business Administration
NSE	Nairobi Securities Exchange
NPV	Net Profit Value
PVO	Present Value at time Zero
PV	Present Value
PB	Payback Period
ROA	Return on Assets
ROE	Return on Equity

ABSTRACT

This study sought to investigate the impact of investment decisions on performance of companies quoted at the Nairobi Securities Exchange. It sought to specifically assess the impact of investment decisions on profitability of companies quoted at the Nairobi Security Exchange; as well as to ascertain the nature and strength of the relationship between investment decisions and profitability of companies quoted at the NSE.

The study adopted a descriptive survey design that is appropriate to researches seeking to describe the characteristics of firms quoted at the NSE, estimate the proportion of firms with distinct characteristics, and make predictions. The population this study consisted of all forty (40) companies listed at the Nairobi Securities Exchange as at 31st December 2012. From the population that is the companies quoted at the Nairobi Securities Exchange, the researcher analyzed the data extracted from annual reports and accounts for the period (2007-2012) quoted companies as at 31st December 2012. The researcher used secondary data to carry out the study. Secondary data was beneficial to the study because the researcher obtained the relevant data from annual reports and accounts for the defined period for the quoted companies at the Nairobi Securities Exchange. Simple regression analysis was then performed to establish the relationship between investments and performance.

The study found out that there was a positive relationship between the invested amounts and performance (profitability) of the listed companies. This is to mean that with increased decisions on investments the companies would perform better. The study recommends that there is need for the companies to evaluate the various investments options available so as to ensure that the project chosen will give maximum value; decision makers in the companies should also weigh up risk involved in the projects chosen so as to provide the most suitable rewards for stakeholders including shareholders and customers.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Capital budgeting practice has become one of the fundamental criteria for a company planning to undertake an investment. It is one of the most important decisions that face the financial managers today; these decisions shape the future of the company. The process of investment decision should be done taking into considerations the firm's strategic plan. Typical projects include the acquisition of plant and equipment, a marketing campaign, developing a new business or product (Correia *et al.*, 2007; Emery & Finnerty, 1997). These projects are expected to produce future benefits to the organization. Investment decision refers to the process of determining which investment projects result in maximization of shareholders value (Hermes *et al.*, 2007). According to Dayananda *et al.*, (2002), the risk involved in investment decision calls for involvement of all the functional areas of the business to take part in the decision making such as production, marketing, data processing and human department.

The selection of potential investment is done using several techniques which have been designed by many researchers the methods aid in the calculation of expected return from promising investment projects. The following techniques can be used: the Net Present Value (NPV), the Payback Period (PB), Accounting Rate of Return (ARR), Internal Rate of Return (IRR), Discounted Payback Period (DPB) and Real Options.

In Drury (2004), it has been shown that investment decision is of importance to firms because; it enables firms to determine which projects they should accept and companies are also able to determine the total amount of capital expenditure which the firm should undertake.. Investment affects the profitability and long-term strategy of the organization. This calls for management to use proper techniques to evaluate their projects since failure to make valuable decisions can result in the company suffering financially in the long-run.

1.1.1 Investment Decision

Investment decision is the process of evaluating and selecting long-term investments that are consistent with the firm's goal of maximizing owner's wealth.

Horne, (2000) define investment decisions as the allocation of capital to investment proposal whose benefits are to be realized in the future and includes, new product or expansion of existing products, replacement of equipment or buildings, research and development, exploration and others.

Capital expenditure includes all those expenditures which are expected to produce benefits to the firm for a period of over one year, and this includes both tangible and intangible assets. Lynch (2001) looked at the tactics for improving the capital budgeting process to produce results, as a way of maximizing firm's contribution to shareholders' value. He argued that shareholders' value can be increased by improving the capital expenditures process for fixed assets with the caveat that an understanding of the process and a functioning continuous capital budgeting system were prerequisite to improvement activities.

Investment decisions of a firm are generally known as the capital budgeting, or capital expenditure decision. It is defined as the firm decision to invest its current funds most efficiently in the long-term assets in anticipation of an expected flow of benefits over a series of years it includes expansion, acquisition, modernization and replacement of the long-term assets, sale of a division or business(divestment), change in the methods of sales distribution, an advertisement campaign, research and development programme and employee training, shares (tangible and intangible assets that create value) (Pandey 2005).

Despite all these problems, to what extent quoted companies uses investment decision is a question that remained unsolved. When we analyze the literature, the importance of the theme; “past investment and profitability “becomes apparent not only for the academic environment but also capital market and the company managers. However what is being observed is still following an evolutionary pattern with different methodological proposals being carried out. Hence this study attempts to make a significant addition to this debate by exploring gaps that still exist in the literature, as well as suggesting the implementation of a more suitable statistical model for dealing with the longitudinal data of the profitability of companies.

Investments should be evaluated on the basis of criteria that are compatible with the objectives of the shareholders wealth maximization. Therefore, all the stakeholders to some extent have an interest in seeing sensible financial decisions being taken. Many business decisions do not involve a conflict between objectives of each of the stakeholders. Nevertheless, there are occasions when someone has to decide which

claimants are to have their objectives maximized and which are merely to be satisfied- that is, given just enough of a return to make their contributions (Arnold 2005).

In a globalized world, companies are involved in a competitive market environment, in which competitors act against the company; changing suppliers conditions; consumer can then switch their preferences; and new technologies arise; all of which change the circumstances of competition. Faced with this situation, the results of investment can turn out to be different from what was planned and this is beginning to be reflected in the economic and financial results of companies over a period of time. In this scenario and from the standpoint of the company, investment decisions are made with the aim of adding value by obtaining a profit and positive cash flows. From stand point of the shareholders, the profit and positive cash flows must be revealed in the stock prices (Damodaran, 2010).

From the perspective of assessing the effects of investments on the profitability of companies, Gordon and Iyengar (1996), Echevarria (1997), Kim (2001), Li (2004), Jiang et al., (2006) and Hao et al. (2011) seek to describe these relations when investigating the effects of investment on profitability in subsequent periods to those of the investments carried out. This study is based on the fact that investment decisions are made, so it must target positive returns and add value to the company. In view of this, the main objective of this work is to study the relation between investment carried out and the profitability of companies quoted at the Nairobi security Exchange.

1.1.2 Profitability measures

Profitability is the net profit arising from business activities and decisions; it reflects the effectiveness of operations and shows the effects of liquidity on asset management and liabilities in the company results. Profitability can be calculated through performance measures as for example, sales margins, return on assets, return on net worth among others (Brigham and Houston, 2008). Indicators like ROA, ROE and asset turnover have been used as proxy to the profitability of companies when related to levels of corporate governance, ownership concentration or even to make forecasts about future share prices, among other applications (Gordon and Iyengar, 1996; Li, 2004; Jiang et al., 2011).

The return on assets (ROA) is one of the most widely used profitability measures; it is well known in the accounting literature and represents the operational return provided by all the assets of the company. As well as showing the return on investment for the whole company, it is also a key benchmark for making a comparison with third-party capital cost estimates (Weygandt et al., 2009). Apart from the indicators for profitability calculated by accounting measures, there are indicators that use market values to measure the profitability of a company. Tobin's q coefficient is recommended in the financial literature as a criterion that can allow the performance of companies to be measured (Wenderfelt and Montgomery, 1988; Bharadwaj et al., 1999).

The two indicators are used to measure the profitability of companies over a period of time: i) the ROA show the profitability provided by the total assets of the company (calculated annually for each company by dividing operating results by average total assets). ii) the Tobin's q coefficient which shows performance obtained by the company's

shares in the stock market related to its total assets (calculated annually and for each company using as a basis the market share value on 31st December or the quotation immediately before, added to the short and long-term liabilities divided by the total amount of fixed assets in the balance sheet of each year, in accordance with Shin and Stulz, 2000). In this case, Tobin's q coefficient shows a future perspective of profitability by relating the values of company's assets with the market value of its shares and liabilities

1.1.3 Nairobi Securities Exchange

The Securities Exchange is an organized market where stock and shares are issued, bought and sold through the services of stockbrokers or dealers. It is, therefore, a part of the capital market.

The stock market consists of those institutions dealing in long-term funds, and these include the Stock Exchange. The Stock Exchange deals with new issues and second-hand shares. The second-hand market is always extraordinarily larger than the new issue market. The shares are much more liquid, and as such they are much more attractive to invest in. This is especially so if they can correctly be predicted that they can be readily resold for cash at a later date.

The Stock Exchange provides the market for such a resale where second-hand shares may be bought or sold. The company issuing the shares has to make prior arrangements for their shares to be traded.

Nairobi securities exchange has the following functions among others: It enables mobilization of savings for investment in productive enterprises as an alternative in

putting savings in bank deposits, real-estate investment or outright consumption, gives room to the growth of related financial services sector e.g. insurance pension schemes, which nurture the spirit of savings, makes it easy to check against the flight of capital that occurs due to local inflation and currency depreciation and it permits the owners of capital to “divorce” from managing their capital.

1.1.4 Relationship between Profitability and Investment decisions

Financing decisions require an appropriate selection and combination of capital from available sources, investment decisions are concerned with the efficient deployment of capital funds. When the firms make investment, the profitability or the amount of internal funds are considered. As a result, there exists the causal relationship among investment and profitability. In general the firm needs an objective, a means of evaluating or measuring proposed investment and financing opportunities and a criterion for their acceptance or rejection in order to make its financial decisions on a rational basis. The cost of capital is an important element in making optimal investment decision because of the need to devise a rational mechanism for making the investment decision of the firm.

Successful investment decisions generate positive net cash flows which can be used to make interest payment. So the investment decisions are far more important than financing decision because it is the investment decision which decides the level of future cash flows generated from successful trading. As sensible, firm’s practical managers must solve investment and financing decisions at the same time (Pike and Dobbin, 1986).

1.2 Statement of the problem

Most of the results conducted on investment decision and firm performance are majorly on large company and in the context of developed country (OECD 2003, Melville et al., 2004), in their findings some asserted positive impact and others considered it insignificant while some even assume negative impact (Stratopolous 2000). The performance of these quoted companies has become worrisome that one felt it deserve a thorough investigation. That is why it becomes imperative to conduct this research in quoted companies at the Nairobi Security Exchange. This present study has it as an objective to elucidate whether investment a decision has any effect on the profitability of quoted companies with emphasis Nairobi Security Exchange.

The relationship between performance and the investment decision-making process has attracted much theoretical attention (for example, Bailey *et al.*, in press; Simpson *et al.*, 2000; Wensley, 1999 and 1997; McCunn, 1998; Otely, 1997; Nutt, 1997). In 1977 Hambrick and Snow advanced a model of interaction between current and past performance and the investment decision-making process, but concluded that the effects of the investment decision-making process on performance were not well articulated and that the available evidence was insufficient to support specific theories (Papadakis, 1998). Although many other studies (for example, Dean and Sharfman, 1996; Hart, 1992; Quinn, 1980) have described and explained the investment decision-making process, little consensus has emerged as to the expected relationship between organizational performance and investment decision-making processes (for example, Priem *et al.*, 1995; Rajagopalan *et al.*, 1993).

There are few studies carried out on this area in Kenya.(Malombe 2009) on the relationship between capital budgeting methods and performance of water services boards in Kenya and (Kadondi, 2002) A survey of Capital Budgeting Techniques used by companies listed at the Nairobi Securities Exchange (NSE)-Previously Nairobi Stock Exchange. According 71% of respondents, their companies considered capital budgeting process a strategy for achieving competitive advantage. Another finding of the study was that small companies use IRR and Payback Methods while large Companies with high net profit margins use NPV, IRR and Payback Period methods. This study is set to investigate the impact of investment decisions (if any) on performance of companies quoted at the Nairobi Securities Exchange.

1.3 Objective of the study

The objective of the study was to assess the impact of investment decisions on profitability of companies quoted at the Nairobi Security Exchange.

1.4 Value of the study

The study benefited the top managers and policy makers of the company regarding decision on optimum level of investment decision, ways of managing it and overall policies on Investment decision. It gives a clear understanding about the relationship between investment decision and profitability of firms quoted at the Nairobi Security Exchange.

The study acts as a guideline for those who conduct their study on similar topic and gives brief information for shareholders, prospective customers and creditors of a firm regarding profitability in relation to investment decisions.

Current and potential investors in firms quoted at the NSE and other firms in competitive industries will find research findings valuable. The study will add knowledge on the understanding of the impact of investment decisions on company performance.

A study of investment decision is very important for internal and external experts. Sales expansion, dividend declaration, plant expansion, new product line, increase in salaries and wages etc put added strain on investment decision plans.

The research would be useful source material for academicians and students on investment decision and profitability

Management consultants could use the results of the research as a guide in advising their clients (companies) on efficient investment decision.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter was to review the evidence on investment decision and profitability of companies. Hence, the chapter is arranged into three sections. The first section presents the review of theories on investment decision while the second section reviews the empirical evidence pertaining to investment decision and profitability. Third, the section presents conclusions on the literature review on investment decision.

2.2 Review of theories

2.2.1 Neoclassical Theory

The neoclassical model formulation by Jorgensen (1963, 1966, 1967, and 1971) and associates in the wake of the Modigliani-Miller (1958) came up. Pioneered by Dale Jorgenson of Harvard and confirms that Real interest rates and taxes play a key role in determining investment spending. Jorgenson used his theory to analyze the responsiveness of investment to a variety of tax incentives, including investment tax credits that are subsidies to investment

The neoclassical model of investment implies that investment decisions depend mainly upon the cost of capital, and that the real and financial decisions undertaken by the firms are separate. The departure of the Jorgensonian approach was also providing a structural formulation of the investment decision, based on profit maximization behavior by firms.

2.2.2 Accelerator theory

In the Eisner model, gross capital expenditure is a function of sales, depreciation, and profits. Eisner (1978) argued that the rate of expected output should be the primary determinant of investment. In practice, this translates to formulating investment as a distributed lag function of current and past changes in sales. The forces influencing the expected profitability of investment is captured in current and past profits, which may also capture some capital supply effects. i.e., to the extent the capital markets are imperfect; firms tend to invest more when profits are high and less when profits are low. A different approach to investment relative to the profit-maximizing model is that of the accelerator model. This model begins with the notion that a certain amount of capital is necessary to support a given level of economic activity. We can define this relationship as being proportional to GDP:

2.3 Review of empirical studies

There are several studies in the literature that assess the effects of investment carried out by companies from different standpoints as: about effectiveness of investments (Biddle et al. 2009; Cutillas and Sanchez, 2012); their relation with the expected stock returns (McConnell and Muscarella, 1985; Titman et al., 2004; Fama and French, 2006); their relation with profitability or firm value (Gordon and Iyengar, 1996; Echevarria, 1997; Jiang et al., 2006; Hao et al., 2011)

Kadondi (2002) carried out a survey on capital budgeting techniques used by companies listed at Nairobi Securities Exchange (NSE). The objectives were to document the capital budgeting techniques used in investment appraisal by corporations in Kenya, to

determine whether the techniques used conform to theory and practices of organizations in developed countries and to determine how firms and CEO characteristics influence the use of a particular technique. She intended to conduct the study on 54 Companies listed at the NSE but the analysis included only 43 Companies whose annual reports and accounts were available. Of these, only 28 Companies responded of which 50% were small companies and 50% large companies. Data was collected through questionnaires. Data was analyzed using SPSS and was put into frequency distribution tables. Chi-square test was used to test relationships between techniques and firm characteristics. The findings of the study were that 31% of the companies used Payback Period method, 27% use NPV while 23% uses IRR. According 71% of respondents, their companies considered capital budgeting process a strategy for achieving competitive advantage. Another finding of the study was that small companies use IRR and Payback Methods while large Companies with high net profit margins use NPV, IRR and Payback Period methods.

This study is consistent with the survey done by (Graham & Harvey, 2002) who found that large firms favored the sophisticated techniques of capital budgeting while the smaller firms favored the traditional methods of payback and ARR. The issue of capital budgeting techniques being used as a strategic tool for benchmarking and gaining competitive edge was imminent in the study and we concur with the findings.

Graham and Harvey (2002) sought to find out how chief finance officers (CFOs) make capital budgeting decisions and identify areas where theory and practice are consistent. They asked CFOs to rate how frequently they used different capital budgeting techniques on a scale. The sample consisted of 4,440 US firms. A total of 392 CFOs responded to

the survey giving a response rate of 9%. Though low, the rate was consistent with the response rate for the quarterly FEI-Duke survey whose response rate is usually 8-10%, given the length (three pages) and depth (approximately 100 questions) of the survey. They reported results by summarizing the percentage of CFOs who said that they always or almost always used a particular capital budgeting evaluation technique. The study found that NPV and IRR were the most frequently used capital budgeting techniques, 74.9% of CFOs always or almost always used NPV, 75.7% almost or always used IRR while 56.9% of CFOs used hurdle rate. They also found out that companies that pay dividends were significantly more likely to use NPV and IRR than firms that do not pay dividends regardless of firm size. Public companies were found to be more likely to use NPV and IRR than private companies. Other than NPV, IRR and the hurdle rate, the payback period was the most frequently used capital budgeting technique (56.7% always or almost used use this technique). This was found surprising because finance textbooks have lamented shortcomings of payback criterion for decades. The choice of evaluation technique was found to be linked to firm size and executive characteristics. They also observed that payback period method is used by less sophisticated, older managers without MBAs.

Robichek and Van Horne (1967) noted that routine consideration of the abandonment option reduces the potential for down side movement in value. Using the option-pricing they have shown that an asset payoff is bonded from below when the abandonment option is explicitly considered. Their approach emphasizes the reduction of the potential losses as opposed to risk and the increase in firm value implied by the abandonment option is more obvious. According to them, the abandonment value is the value of the

abandonment option and its worth should be included in the calculation of the present value of the future cash inflows.

The calculations of the present value at time zero (PVO); provide the market valuation at such a point in time. As time passes, conditions, either endogenous or exogenous to the firm, will change the present value of an asset. Thus the present value of future cash flows of the same asset will be different at any given point in time. The question of whether to abandon and the decision process of the optimal timing of abandonment have been considered. They suggest that a policy of abandoning an asset one period after abandonment value becomes greater than the present value ($AV > PV$) would benefit the firm.

They considered investment in a mine when mothballing can occur by incurring maintenance cost and costless abandonment of the mine is possible. They found that it's optimal to close the mine only when the output price has fallen considerably below production cost, and conversely, it's not optimal to re-open a mothballed mine even when the output rises, well above the production costs. Thus, there is a range of value of output prices over which it is optimal to produce. This phenomenon, that is a consequence of the interaction of sunk costs and uncertainty, is referred to in economic literature as hysteresis.

In their work, Holmén and Pramborg (2009) investigated Swedish firms' use of capital budgeting techniques for foreign direct investments (FDI). Questionnaires were sent to the CFOs of the Swedish firms that had responded to a survey from the Swedish central bank (Riksbanken) in the spring of 2003, regarding how much FDI the firm had invested

as of December 2002. A total of 497 firms met the criteria and 200 responded. They surveyed to what extent firms actually use pre-investment strategies to manage political risks. They focused the analysis on whether firms were more likely to use the Payback method instead of the theoretically correct NPV method when the risk of expropriation was perceived to be high. They concluded that in the presence of political risks, managers are reluctant to rely on the traditional NPV method and suggest this is due to the fact that they find it difficult to take such risks into account. This is consistent with managers being bounded rational decision makers, using simple rules of thumb when the deliberation cost is high. Further, the results are consistent with the notion that the rules of thumb are adjusted to proxy optimal decision as far as possible.

Block (2005) carried out a study on the use of capital budgeting procedures between industries and stated that while it is easy to state that the use of capital budgeting analysis has become more sophisticated over the decades, the question remains as to whether different industries have followed the same pattern. He conducted a survey comprising of three hundred and two companies and organized them along industry lines. Chi-square independence of classification tests indicated that a null hypothesis of no significant relationship between industry classification and capital budgeting procedures could be rejected in a number of decision-making areas including goal setting, rates of return, and portfolio considerations. This emphasized the point that, just as industry patterns affects financing decisions; they also affect capital budgeting decisions.

Uddin and Chowdhury (2009) sought to find out whether the capital budgeting theory of large business is well applicable for the small businesses or not. He suggested that if it is

not, then further development of theory becomes necessary. He found that out that there is no well accepted standard definition of small business in the literature that can be used to create the basis of applying the theory of capital budgeting. It is possible to say that the theory of capital budgeting, which is constructed under assumptions related to large incorporated businesses, is not fully applicable for small businesses. He argued that NPV however is the ultimately suggested method of capital budgeting that involves estimation of cash flows, and the market determined discount rate. Both of these two tasks require expertise and relevant knowledge. Decision-makers in small businesses may lack this knowledge or may find it cost ineffective to hire that kind of expertise.

Moreover, market determined discount rate is not possible to find since the market for small business's capital is not liquid, which does not allow thinking about separation of investment and financing decision. Also, the effect of agency conflict, when it is present, on the investment decision, is different for small businesses because of lack of separating ownership and control. Size and availability of capital as well as investment opportunities are also among some other factors contributing to this conclusion. He found that the reasons for the inapplicability were:-lack of knowledge, cost of hiring outside consultants, low priority of planning, size and availability of capital, size and availability of investment opportunities, tendency of high reliance on easy techniques like payback period, short operating history, credit constraints, difficulties in quantifying future cash flow, and limited discretionary alternatives for investments.

Stein and Scharfstein (1997) developed a two-tiered agency model that shows how rent-seeking behaviour on the part of division managers can subvert the workings of an

internal capital market. By rent-seeking, division managers can raise their bargaining power and extract greater overall compensation from the CEO. And because the CEO is herself an agent of outside investors, this extra compensation may take the form not of cash wages, but rather of preferential capital budgeting allocations. One interesting feature of his model is that it implies a kind of “socialism” in internal capital allocation, whereby weaker divisions get subsidized by stronger ones.

Dean and Sharfman (1996) observed, the following two assumptions must hold to prove a link between investment decision process and decision effectiveness. Firstly, it must be assumed that investment decision processes are related to choices; or, more specifically, that the investment decision process followed influences the choices made this could of course be tested in an organizational level analysis. Although this assumption appears intuitively obvious, many academics have argued that the operating environment shapes organizational and individual choices (Aldrich, 1979; Pfeffer and Salancik, 1978). Others, however, claim that despite the existence of these external factors, managers retain a substantial degree of control over choices (for example, Miles, 1982; Child, 1972). One argument made in favor of this position by Dean and Sharfman (1996) is that some managers make very poor choices with devastating consequences for their firms, while others in very similar circumstances make much better choices (for example, Bourgeois, 1984). Such variation, the authors assert, could not exist if constraints alone were driving decisions. Hence, Dean and Sharfman (1996) conclude that it appears likely that viable outcomes are a product of the decision process used. Leading on from this, the second assumption is that choices relate to outcomes, and that all outcomes are not equally good. Once again there can be very little doubt that external forces also influence

decision effectiveness (Hitt and Tyler, 1991; Pfeffer and Salancik, 1978). Changes in competitor strategies or customer tastes can turn strategic coups into disasters or vice versa. However, Dean and Sharfman (1996) note that it is unlikely that the influence of such forces eliminates the impact of choice on decision effectiveness as it is hard to imagine a decision in which all potential choices will be equally successful or unsuccessful. The two assumptions then appear plausible (Dean and Sharfman, 1996) which suggests that it is reasonable to expect the investment appraisal decision-making process to influence decision effectiveness. However, as Aldrich rightly observed (1979), the importance of managerial decisions in determining organizational outcomes is ultimately an empirical question (Dean and Sharfman, 1996).

Many empirical studies have investigated the existence of a relationship between the investment decision-making process and effectiveness. None have concentrated on the use of decision analysis in the investment decision-making processes of organizations. However, several have explored the effects of comprehensiveness, rationality, formality and consensus in the decision-making process on organizational performance. In much of the decision theory literature, it is argued that decision Analysis provides a convincing rationale for choice improves communication and permits direct and separate comparisons of different people's conceptions of the structure of the problem, and of the assessment of decomposed elements within their structures, thereby raising consciousness about the root of any conflict. (Humphreys, 1980 in Goodwin and Wright, 1991 p177) Goodwin and Wright (1991) also argue that adopting a decision analysis approach implies comprehensiveness/rationality and formalization of the decision-making process, improved communication amongst the stakeholders and provides the organization with

access to a common language for discussing the elements of a decision problem. This, they argue, helps to build consensus in the company, which in turn expedites implementation of the decision.

Since adopting decision analysis clearly involves comprehensiveness, rationality, increased formality and high levels of organizational consensus, it suffices to examine that empirical literature that has examined the relationship between these aspects of the investment decision-making process and decision effectiveness. These studies are now examined. Attention is first focused on the effect of comprehensiveness and rationality in the decision-making process.

Smith *et al.* (1988) provided some empirical support for a positive relationship between performance and comprehensiveness/rationality in the decision-making process. They found that, for both small and larger firms, comprehensive decision making processes out-performed less comprehensive. Similarly, Jones *et al.* (1992) reported consistently positive relationships between organizational effectiveness and comprehensiveness in decision-making. In addition, a series of publications on hospital integration strategies (for example, Blair *et al.*, 1990), researchers found that successful ventures were associated with comprehensive strategy formulation processes (Papadakis, 1998). Janis. (1989) case studies suggested that public policy decisions that used rational methods were more successful than those that did not Papadakis. (1998) study also provided evidence that the companies that exhibit the strongest organizational performance tend to be those with rational decision-making processes, a participative approach and extensive financial reporting. Furthermore, studies by Capon *et al.* (1994) and Pearce *et al.* (1987)

suggest that formalization in strategic planning is positively related to organizational performance. Such results led Papadakis (1998) to hypothesize that performance is positively related to comprehensiveness/rationality and formalization in the investment decision-making process.

Conversely, Fredrickson and his colleagues (Fredrickson and Iaquinto, 1989; Fredrickson, 1985; Fredrickson, 1984; Fredrickson and Mitchell, 1984) looked at prototypical (assessed by response to a scenario) rather than actual investment decision-making processes and related them to firm performance rather than to specific decision outcomes and concluded that firms usually do not use slack generated by excellent performance to pay the costs of seeking optimal solutions; instead resources are absorbed as suboptimal decisions are made. This phenomenon may help explain why managers in historically successful firms sometimes make a series of what appear to be inadequately considered, intuitive decisions that in combination have significant negative consequences (Fredrickson, 1985 p824).

Similarly, Cyert and March (1963) argued that superior performance lowered the intensity with which organizations searched for and analyzed information. More specifically, Bourgeois (1981) and March and Simon (1958) proposed that slack resources permit organizations the luxury of satisfying and sub-optimal decision-making.

Whereas in poorly performing organizations the lack of basic funds exerts pressure on management during the making of crucial decisions, as a wrong decision may drive the firm out of business. Consequently, since management has less scope for error, they may have strong incentives to follow rational/comprehensive processes (Bourgeois and

Eisenhardt, 1988; Cyert and March, 1963). This suggests that managers of poorly performing firms may hire consultants, seek advice from various sources and conduct extensive financial analyses (Papadakis, 1998). Such observations led Fredrickson (1985) to conclude that the investment decision-making process of poor performers is more comprehensive than that of excellent performers. The above arguments, if correct, would indicate that good organizational performance is negatively related to comprehensiveness/rationality in the investment decision-making Process (Papadakis, 1998).

Clearly, then, much of the research to date appears to have produced contradictory results and no consensus seems to have yet emerged. Contrary to the arguments of Fredrickson (1985) and others, it can be argued that good performance enables companies to rationalize/ modernize their internal structure and systems and thus be in a position to apply more rational/ comprehensive and formalized investment decision making processes for two reasons. Firstly, as Dean and Sharfman (1996) have previously argued, effective decisions must be based on organizational goals. Rational decisions usually require extensive data collection and analysis efforts and it is difficult to do this unless the decision is closely aligned to the organization's objectives (Langley, 1989). Hitt and Tyler (1991, p329) described rational, formalized decision-making as a series of analytical processes in which a set of objective criteria is used to evaluate strategic alternatives. This orientation toward organizational goals makes it more likely that procedurally rational decisions will be effective (Dean and Sharfman, 1996). Secondly, formalized, rational decisions are also likely to involve relatively complete information and knowledge of constraints. Executives who collect extensive information before

making decisions will have more accurate perceptions of environmental conditions, which have been shown to relate positively to firm performance (Bourgeois, 1985).

Therefore, it can be argued that good performers are less likely to exhibit less politics and less problem-solving disagreement in their decision-making process.

This section has justified the assumptions that must hold in order to prove a link between investment decision process and effectiveness. It has reviewed those empirical studies that have focused on the effects of comprehensiveness, rationality, formality and consensus in the decision-making process on organizational performance. It therefore suffices to advance only one hypothesis for empirical testing in this thesis. Organizational performance is positively related to use of decision analysis in investment appraisal decision-making.

2.4 Conclusions

A capital expenditure budget is one of the components that make up the financial budget. Each of the budget components has its own unique contribution to make toward effective planning and control of business operations. For a single conventional, independent projects, the IRR, NPV and PI methods lead us to make similar accept/ reject decision. Various types of circumstances and projects differences can cause ranking difficulties. Four situations that could cause include; when funds are limited necessitating capital rationing, when ranking two or more projects proposals with varied lives, when ranking two or more projects with different Investment scales and when projects have opposite cash flow patterns.

Since investment decisions are important for the company, it is hoped that this study can make a positive contribution to decision-making about investment. It should also be of value to the stock market and its investors by providing confirmation through market measurements that profitability is positively related to past and present investment, past profitability and growth opportunities.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methods the researcher used to achieve the objectives of the study and thereby attempt to answer the research objectives outlined in Chapter One. The chapter further discusses the following aspects of research that the study utilized; they include:- research design, study population, research sample, data collection and procedure, data analysis, data validity and reliability.

3.2 Research Design

The study adopted a descriptive survey design that is appropriate to researches seeking to describe the characteristics of firms quoted at the NSE, estimate the proportion of firms with distinct characteristics, and make predictions. The purpose of a descriptive study is normally to gather information about the present existing conditions without making amends to the actual observation (Creswell, 1994). Therefore, this study aims to gather information from the firms quoted at the Nairobi Securities Exchange. Descriptive survey, according to Best and Kahn (1998) has the ability to produce statistical information about aspects of education that interest policy-makers and researchers.

According to Orodho (2003), descriptive survey research designs are used in preliminary and exploratory studies to enable researchers gather information, summarize, and interpret the data. The purpose of descriptive research according to Mugenda and Mugenda (2003) is to determine and report phenomena and help in establishing the current population under the study. The chosen design enabled the researcher to

adequately address the research questions and hence meet the objectives of the proposed study.

3.3 Population

Cooper and Schindler (2006) define population as the total collection of elements about which one wishes to make some inferences. This study intended to cover the companies quoted at the Nairobi Securities Exchange. The researcher obtained the company data extracted from annual reports and accounts for the periods selected, from the companies quoted at the NSE to obtain the information that would enable achieve the objectives of the study. According to Mugenda and Mugenda (2003), the target population should have some observable traits to which the researcher aims at when generalizing the result of the study. The researcher has done the profiling since the nature of the information required can only be obtained from the target population but not everybody else.

The population this study consisted of all forty (40) companies listed at the Nairobi Securities Exchange as at 31st December 2012

3.4 Sample Design

From the population that is the companies quoted at the Nairobi securities Exchange, the researcher analyzed the data extracted from annual reports and accounts for the period (2007-2012) quoted companies as at 31st December 2012. The reason for the researcher to sample from the forty listed companies is because of the following reasons. There were new entrants in the market which have not lasted more than five years, other companies to be eliminated are those that one is unable to justify the trend i.e. no consistency in the period in the market and those that were suspended during the period.

Financial institutions and insurance firms adopt different reporting structure in their annual reports and accounts. They are also subject to special regulations e.g. banking and insurance Acts. Consequently the companies in the financial institutions sector and insurance sector will be excluded from the analysis.

3.5 Data Collection Method

The researcher used secondary data to carry out the study. Secondary data was beneficial to the study because the researcher obtained the relevant data from annual reports and accounts for the defined period for the quoted companies at the Nairobi Securities Exchange.

3.6 Data Analysis Method

Using financial reports for the years 2007 to 2012, total amount spend on investment activities; return on assets (ROA) was calculated for five years for each company.

Simple regression analysis was then performed to establish the relationship between investments and returns performance indicators i.e. ROA, Investment amounts were regressed against performance indicators for the same period.

The regression equation was:

$$Y = a + bX + e$$

Where

Y is the returns performance indicators (ROA)

X is the amount spent on investments

b is the slope or gradient of investment amount.

While **a** is the constant and **e** is the error term.

Co-efficient of correlation **R** was used to establish the relationship between ROA, as dependent variables and investments as independent variables. A positive **R** showed a direct relationship while a negative **R** showed an inverse relationship.

Co-efficient of determination **R squared** was used to measure the total variation in dependent variable (performance indicators) that will be accounted for by the variation in the independent variable (investments)

F test was used to test the significance of the overall model. The null hypothesis (i.e. the model lacking explanatory power) will be rejected when significance value **F** statistic was less than 0.05 (significance level).

Durbin Watson test was used to test the autocorrelation in the model. It tested the independence of each value of investments at different observations. Durbin Watson value above 2 shows the absence of autocorrelation.

T test was used to test for the significance of each predictor variables in the model. The null hypothesis (i.e. the model lacking explanatory power) was rejected when significance value **t** statistic will be less than 0.05 (significance level).

Considering the qualitative nature of the study and the information from the collected data, the data will be analyzed using qualitative content analysis. Content analysis is a method of summarizing any form of content by counting its various aspects, thus enabling a more objective evaluation. The content analysis will be carried out to identify the companies that will have a positive correlation in investment decision and profitability. Analysis of data collected will then be compared with theoretical approach and themes in literature review. The data will be analyzed and thereafter be interpreted with respect to research questions using the 17th version of SPSS.

3.7 Data Validity and Reliability

Validity is the ability of the research instruments to measure what is purported to measure. This will be relayed by the auto correlation of the data analyzed for the period selected.

Reliability is concerned with estimates of the degree to which a measurement is free of random or unstable error. Reliable instruments are robust; they work well at different times under different conditions. This distinction of time and condition is the basis for frequently used perspectives on reliability-stability, equivalence and internal consistency

CHAPTER FOUR

DATA ANALYSIS FINDINGS AND INTERPRETATION

4.1 Introduction

This chapter presents the findings of the study based on the data collected from the field. The study sought to determine the effects of investment decisions on profitability of companies quoted at the Nairobi Securities Exchange. The study used the secondary data which included the financial statements (balance sheets and profit and loss accounts) of the companies listed in the NSE for period of six years (2007-2012).

4.2 Findings

The regression model was applied to determine the form of relationship between investments and returns performance indicators i.e. ROA, Investment amounts were regressed against performance indicators for the period between 2007 to 2012. The regression equation took the following form.

$$Y = a + bX + e$$

Where: **Y** is the returns performance indicators (ROA), **a** is a constant while **X** is the amount spent on investments, while **e** is the error term.

Investment value of the companies was presented by fixed assets plus current assets less current liabilities. Further, the investment index was calculated as follows:

$$\text{Investment Index} = \frac{\text{Investment}}{\text{Average total assets}}$$

Table 4.1 Model Summary- Year 2007

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.950(a)	0.902	0.878	1.32157

a) Predictors: (Constant), Invested Amount

Adjusted R^2 is called the coefficient of determination and tells us how performance of the listed companies which was represented by ROA (Dependent variable) varied with (independent variables) the investments amounts. From the regression model summary in table 4.1 above, the value of adjusted R^2 is 0.878. This implies that investment amounts explained 87.8% of performance in the listed companies. This is to mean that the regression line accounts for 87.8% of the total observations.

Table 4.2 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.635	1	64.635	37.007	.004(a)
	Residual	8.735	5	1.747		
	Total	73.370	6			

a) Predictors: (Constant), Invested Amount

b) Dependent Variable: Profitability (ROA)

The study used ANOVA to establish the significance of the regression model from which an f-significance value of $p=0.004$ was established. This shows that the regression model has a less than 0.004 likelihood (probability) of giving a wrong prediction. Hence the regression model has a confidence level of 95%.

Table 4.3 Coefficients Results

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	35.920	3.653		9.832	0.001
	Invested amounts	0.731	0.120	0.950	6.083	0.004

a) Dependent Variable: Profitability (ROA)

From the regression analysis, the following regression equation was established:

$$\text{ROA} = 35.920 + 0.731X_1$$

From the above regression model, it can be seen that, a unit increase in investments amount would cause an increase in profitability by a unit of 0.731. The results further show that there was a significant relationship between investment amounts and performance/profitability of the listed companies as shown by the P value: ($P=0.004<0.005$).

Table 4.4 Model Summary Year 2008

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.950(a)	0.902	0.883	1.28623

a) Predictors: (Constant), Invested Amount

A correlation value of 0.950 was established which shows a high relationship between dependent and independent variables. This is also shown by a coefficient of determination value of 0.883. This is to mean that, the investments amounts explained 88.3% of the returns in the year 2008.

Table 4.5 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76.308	1	76.308	46.125	0.001(a)
	Residual	8.272	5	1.654		
	Total	84.580	6			

a) Predictors: (Constant), Invested Amount

b) Dependent Variable: Profitability (ROA)

The study used ANOVA to establish the significance of the regression model from which an f-significance value of $p=0.001$ was established. This shows that the regression model has a less than 0.001 likelihood (probability) of giving a wrong prediction.

Table 4.6 Coefficients Results

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.645	3.459		10.593	0.000
	Invested amounts	0.761	0.112	0.950	6.792	0.001

a) Dependent Variable: Profitability (ROA)

The study shows that, a unit increase in investment amounts would cause an increase in return on assets at unit of 0.761. The following regression analysis was obtained:

$$\mathbf{ROA} = 36.645 + 0.761X_1$$

The results further show that there is a significant relationship between invested amounts and profitability (ROA) of the listed companies as shown: online banking ($p=0.001<0.05$). Hence, there is a positive and significant relationship between ROA and investment amounts.

Table 4.7 Model Summary Year 2009

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.760(a)	0.577	0.542	0.333

a) Predictors: (Constant), Invested Amount

Table 4.7 above shows the value of adjusted R^2 is 0.542. This implies that, the independent variables- invested amounts, explained 54.2% of return on assets. This is also to mean that the regression line accounts for 54.2% of the total observations.

Table 4.8 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.819	1	1.819	16.385	0.000(a)
	Residual	0.555	5	0.111		
	Total	2.374	6			

a) Predictors: (Constant), Invested Amount

b) Dependent Variable: Profitability (ROA)

In table 4.8 above, an f-significance value of $p=0.000$ was established. This shows that the regression model has a less than 0.1% likelihood (probability) of giving a wrong prediction. Hence the regression model is reliable since it has a confidence level of above 95%.

Table 4.9 Coefficients Results

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.179	0.152		1.178	0.000
Invested amounts	0.502	0.096	0.324	3.143	0.003

a Dependent Variable: Profitability (ROA)

The following regression equation was established:

$$\text{ROA} = 4.179 + 0.502 X_1$$

From the above regression model, holding all the variables constant, return on assets would be achieved at a unit of 4.179 while a unit increase in investments amounts in the companies listed in the NSE would cause an increase in return on assets by a unit of 0.502. Moreover, the study found out that there was a significant relationship between invested amounts in the companies and the return on assets ($p=0.003<0.05$).

Table 4.10 Model Summary Year 2010

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.895(a)	0.801	0.766	0.53181

a) Predictors: (Constant), Invested amounts

From the regression model summary above, the value of adjusted R^2 is 0.766. This implies that, there was a variation of 76.6% of return on assets with the invested amounts, or rather; the invested amounts explained 76.6% of the return on assets in the year 2010.

Table 4.11 Analysis of Variance- ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.985	1	4.985	17.625	0.000(a)
Residual	1.415	5	0.283		
Total	6.40	6			

a) Predictors: (Constant), Invested Amount

b) Dependent Variable: Profitability (ROA)

The analysis of variance was calculated to establish the reliability of the model results. An f-significance value of $p=0.000$ was established which implies that model has a less

than 0.1% likelihood (probability) of giving a wrong prediction; hence the model is reliable.

Table 4.12 Coefficients Results

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.204	0.402		5.481	0.000
Invested amounts	0.550	0.094	0.652	5.832	0.000

a) Dependent Variable: Profitability (ROA)

The following regression analysis was established:

$$\mathbf{ROA} = 2.204 + 0.550\mathbf{X}_1$$

The regression analysis established that there was a positive and significant relationship invested amounts and the return on assets of the companies listed in the NSE as shown ($p=0.000<0.05$). The results shows that, a unit increase in invested amounts would lead to an increase in return on assets by a unit of 0.550.

Table 4.13 Model Summary for Year 2011

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.865(a)	0.748	0.691	4.605

a) Predictors: (Constant), Invested Amount

Table 4.14 above shows the value of adjusted R^2 is 0.691. This implies that, there was a variation of 69.1% of return on assets with the invested amounts by the listed companies in the year 2011. In other words, the regression line accounts for 69.1% of the total observations.

Table 4.14: Coefficient's Results for Year 2011

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.918	1.715		3.133	0.000
	Invested Amount	0.579	0.057	0.095	0.093	0.028

a) Dependent Variable: Profitability (ROA)

The established regression equation for was

$$\text{ROA} = 3.918 + 0.579 X_1$$

In the year 2011, the study found out that, a unit increase in invested amounts would cause an increase in return in investments by a factor of 0.579. It was also found out that there was a significant relationship between invested amounts by the listed companies and return on assets as shown; $p=0.028<0.05$).

Table 4.16: Regression Model Summary for the Year 2012

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.898a	0.806	0.775	0.468

a) Predictors: (Constant), Invested Amount

A correlation value of 0.898 was established which shows a high relationship between dependent and independent variables. The value of coefficient of determination value was 0.775. The determination coefficient value indicates that the regression line accounts for 77.5% of the total observations.

Table 4.17: Regression Coefficients for the Year 2012

	Un-standardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.182	1.367		0.871	0.000
Invested Amount	0.639	0.273	0.246	1.461	0.000

a) Dependent Variable: Profitability (ROA)

The study shows that, a unit increase in invested amounts would cause an increase in return on assets by a value of 0.639. The following regression analysis was obtained:

$$\mathbf{ROA} = 1.182 + 0.639X_1$$

The study further shows that there is a significant relationship between growth on the amounts invested by the listed companies and the return on assets as shown ($p=0.000<0.05$). This implies that an increase in amount invested will always have a positive effect on performance of the listed companies.

4.3 Summary and Interpretation

A review of the findings shows that, in the year 2007, there was a positive relationship between the invested amounts and performance (profitability) of the listed companies. It was established that, a unit increase in investments amount would cause an increase in profitability by a unit of 0.731. Moreover, there is a significant relationship between investment amounts and performance profitability of the listed companies.

In the year 2008, the study shows that, a unit increase in investment amounts would cause an increase in return on assets at unit of 0.761. The study also established a significant relationship between invested amounts and profitability of the listed companies. In 2009 there was a positive relationship between investment amounts and profitability of the companies. A unit increase in investments amounts was found to cause an increase in return on assets by a unit of 0.502; the relationship was significant.

In the year 2010, the results show that there was a positive and significant relationship invested amounts and the return on assets of the companies listed in the NSE. A unit increase in invested amounts would lead to an increase in return on assets by a unit of 0.550. In 2011, the study found out that, a unit increase in invested amounts would cause an increase in return in investments by a factor of 0.579. The relationship between the two variables was also found to be significant relationship.

In the year 2012, the study established a positive relationship between the two variables whereby, a unit increase in invested amounts would cause an increase in return on assets by a value of 0.639. Moreover, the study found out that there is a significant relationship between the amounts invested by the listed companies and the return on assets.

A review of the findings above shows that there was a positive and significant relationship between the investment decisions and performance of the companies listed in the NSE. This is in line with a study by Smith *et al.* (1988) who provided some empirical support for a positive relationship between performance and comprehensiveness/rationality in the decision-making process. They found that, for both small and larger firms, comprehensive decision making processes out-performed less comprehensive. Jones *et al.* (1992) also reported consistently positive relationships between organizational effectiveness and comprehensiveness in decision-making.

Goodwin and Wright (1991) also argue that adopting a decision analysis approach implies comprehensiveness/rationality and formalization of the decision-making process, improved communication amongst the stakeholders and provides the organization with access to a common language for discussing the elements of a decision problem. This, they argue, helps to build consensus in the company, which in turn expedites implementation of the decision.

Papadakis (1998) study also provided evidence that the companies that exhibit the strongest organizational performance tend to be those with rational decision-making processes, a participative approach and extensive financial reporting. Studies by Capon *et al.* (1994) and Pearce *et al.* (1987) suggest that formalization in strategic planning is positively related to organizational performance. Such results led Papadakis (1998) to hypothesize that performance is positively related to comprehensiveness/rationality and formalization in the investment decision-making process.

This study also agrees with findings of Cyert and March (1963) who argued that superior performance lowered the intensity with which organizations searched for and analyzed

information. More specifically, Bourgeois (1981) and March and Simon (1958) proposed that slack resources permit organizations the luxury of satisfying and sub-optimal decision-making.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings, the conclusion and the recommendations of the study which sought the relationship between investments and performance (profitability) of the companies listed in the NSE.

5.2 Summary

This study sought to investigate the impact of investment decisions on performance of companies quoted at the Nairobi Securities Exchange. It sought to specifically assess the impact of investment decisions on profitability of companies quoted at the Nairobi Security Exchange; as well as to ascertain the nature and strength of the relationship between investment decisions and profitability of companies quoted at the NSE

The study is expected to benefit the top managers and policy makers of the company regarding decision on optimum level of investment decision, ways of managing it and overall policies on Investment decision. It gives a clear understanding about the relationship between investment decision and profitability of firms quoted at the Nairobi Security Exchange. The study would also act as a guide to management consultants in advising their clients (companies) on efficient investment decision as well as to shareholders, prospective customers and creditors of a firm regarding profitability in relation to investment decisions. The research would be useful source material for academicians and researchers in this field.

This study was guided by the neoclassical model formulated by Jorgensen (1963, 1966, 1967, and 1971) as well as accelerator theory by Eisner model; where Eisner (1978) argued that the rate of expected output should be the primary determinant of investment.

The study adopted a descriptive survey design that is appropriate to researches seeking to describe the characteristics of firms quoted at the NSE, estimate the proportion of firms with distinct characteristics, and make predictions. The population this study consisted of all forty (40) companies listed at the Nairobi Securities Exchange as at 31st December 2012. From the population that is the companies quoted at the Nairobi securities Exchange, the researcher analyzed the data extracted from annual reports and accounts for the period (2007-2012) quoted companies as at 31st December 2012. The researcher used secondary data to carry out the study. Secondary data was beneficial to the study because the researcher obtained the relevant data from annual reports and accounts for the defined period for the quoted companies at the Nairobi Securities Exchange. Simple regression analysis was then performed to establish the relationship between investments and performance.

5.3 Conclusions

It can be concluded that, there is a positive and significant relationship between the investment decisions and profitability of the companies listed in the NSE. This is to mean that with increased decisions on investments the companies would perform better. However, the performance as observed from the results varied year by years; this may be as result of macro-economic factors which may be attributed to the varying performances.

Capital investment decisions are long-term corporate finance decisions relating to fixed assets and capital structure. Decisions are based on several inter-related criteria. Corporate management seeks to maximize the value of the firm by investing in projects which yield a positive net present value when valued using an appropriate discount rate. These projects must also be financed appropriately. If no such opportunities exist, maximizing shareholder value dictates that management returns excess cash to shareholders. Capital investment decisions thus comprise an investment decision, a financing decision, and dividend decision. A positive investment decision can only be taken the application of ratio analysis.

The study also concludes that whereas in poorly performing organizations the lack of basic funds exerts pressure on management during the making of crucial decisions, as a wrong decision may drive the firm out of business.

5.4 Policy Recommendations

In view of the findings, the following recommendations were made:

Investment decisions are important for the company, since they make a positive contribution to companies' performance as revealed by the results of this study. Hence the study recommends need for emphasis on more and focused investment decisions so as to maximize on shareholders' value. Focused investment decisions would ensure creation of new jobs, increasing the volume of consumption, and creating new investment opportunities.

Investment decisions involve weighing up the risk and the likely rewards of various options. The study therefore recommends that the decision makers in the companies listed in the NSE have to weigh up risk so as to provide the most suitable rewards for stakeholders including shareholders and customers. The starting point should always be the company's overall aim which then filters down into a strategy, creating a balanced portfolio made up of numerous investments.

There is need for the companies to evaluate the various investments options available so as to ensure that the project chosen will give maximum value. The companies can achieve this through project ranking which would help them establish how much would a particular project return as well as which project has the ability to provide the business, a maximum value. Moreover, the study recommends for extensive use of measures such as payback method, net present value method, and the IRR methods which can help give an estimate of the firms' return over several investment projects.

Companies should also be more cautious and consider both macroeconomic environment and legal environment before they venture into making investment decisions. Some sectors may be more prone to risks from the macroeconomic environment than the legal environment. For instance, trade companies and financial services companies should pay more emphasis on macroeconomic environment in their investment decision process, whereas agricultural companies should pay more attention to the legal barriers in their investment decision process.

Investment knowledge has a place in investment decision-making. There is therefore need for the companies listed in the NSE to employ highly skilled and qualified staff; this

would help the companies effectively analyze and understand the features and nature of available investment instruments as well as how the investment markets operate.

5.5 Limitations of the Study

In conducting the study, the researcher encountered a number of challenges. One of the challenges was lack of cooperation from some of the sampled companies who were unwilling to give information. This study was dependent on financial statements and some companies were unwilling to give such information. However, the researcher explained to the company authorities that the sought information was just for academic purposes and would not be released to third party.

Another limitation was that, this study relied on secondary data from the companies listed in the NSE. However, the secondary information did not give a clear picture on the impact of investment decisions on performance of the companies. There was need to collect primary data as well so as to get the managements' opinion on the issue. Hence the study could not clearly a formidable conclusion by relying on secondary data only.

The study consisted of companies listed at the Nairobi Securities Exchange. The companies in the NSE have characteristics distinct from other companies not listed. Therefore, the results of this study cannot be generalised to other companies unless only those listed in NSE.

Lastly, this study only covered a period of 6 years (from 2007 to 2012). The researcher could not conduct an extensive study for long period due to lack of enough resources and time. A study conducted for a longer period would form a better formidable conclusion.

5.6 Suggestions for further study

This study concentrated on the listed at the Nairobi Securities Exchange. The researcher suggests that a replicate study should be conducted in companies which are not listed in the NSE for comparison of results. This would help form a better conclusion and make any distinctions if there.

This study depended solely on secondary data. This data however could not form a clear picture on the impact of investment decisions on performance of the companies listed in NSE. The study recommends that future studies could also gather primary data from the staffs and the management so as to get their opinion on the issue.

There is need to conduct a study to establish the challenges that the companies experience when making decisions on the investments that the companies should invest on. And also establish whether the process of investment decision is done taking into considerations the firm's strategic plan.

Lastly, the researcher suggest that a similar study conducted should seek to establish whether the size of the companies determine the form of investments that they make. Moreover, a study should be conducted also to establish whether the companies CEO influence the companies' investment decisions.

REFERENCES

- Arslan, O. (2008), Overinvestment and investment inefficiency, *international journal of economic perspective*, 2, pp134-149
- Arnold C. (2005), *A Business Companion to Financial Markets, Decisions and Techniques*, Pearson Education
- Black, F., Scholes, M., & Merton, R. (1973), The Pricing of Options and Corporate Liabilities, *Journal of Political Economy*, 81(3), pp637-659
- Block, S. (2005).Are There Differences in Capital Budgeting Procedures between Industries, *the Engineering Economist*, 50(1), pp55-67
- Brealey, R.A & Myers, S.C. (2000), *Principles of Corporate finance (4th edition)*.New York
- Donald R Cooper, Pamela S Schindler (2006), *Business Research Methods*, (9th ed.), Tata McGraw-Hill
- Echevarria, D.P. (1997), Capital investment and the profitability of fortune 500 Industrials, *Studies in Economics and Finance*, 8, pp3-35
- Ehie, I.C., and K.Olibe. (2010),The effect of R&D investment on firm value, *an examination of US manufacturing and service industries*, *International journal Productions Economics* , 128, pp 127-135
- Gervais,S. (2009),*Capital Budgeting and Other Investment Decisions*, Willey,

H.K.Nofsinger

Gitman,L. Firms. & Vandenberg, P., (1980), *Financial Practice and Education*, Vol.10, No.2, pp 53-68

Gitman, L.J. (2003), *Principles of managerial finance*, (10th ed.), Boston, Pearson Education

Holmen & Pramborg, (2009), *Capital Budgeting and political Risk*, Empirical Evidence

Kadondi, (2002), *a Survey of Capital Budgeting Techniques used by companies listed at the Nairobi Securities Exchange*.

Lawrence J. Gitman (2003), *Principles of Managerial Finance*, (10th Edition),Herper Collions Publishers Inc.

Li, X., & Johnson, D.J (July-September 2002), Evaluate IT Investment Opportunities Using Real Options Theory, *Information Resource Management Journal*, 15(3), pp 32-47

Njiru, B.M. (2008), *A survey of capital Investment Appraisal Techniques used by Commercial Parastatals in Nairobi*.

Northcott, D. (1992), *Capital Investment Decision- Making*, London, Academic Press

Pandey, IM (2010), *Financial Management*, (10th Ed.), Noida, VIKAS Publishing House PUT Ltd.

Pike, R. & Neale B. (2009), Corporate Finance and Investment, *Decisions and Strategies*, (6th Ed.), Printice Hall, UK

Pradeep, B., & Quesada, L. (2008) , The use of Capital Budgeting Techniques in Business, A *Perspective from the Western Cape*, 21st Australasian Finance and Banking Conference

Robichek, A.A., & Van Horne, J.C. (1967), abandonment Value and Capital Budgeting, *Journal of Finance*, pp 577-589

Ryan, G.P. (2002), Capital Budgeting Practices of the Fortune 1000, How have things changed, *Journal of Business and Management*, 8(4), pp 355-364

Scott Besley & Eugene F. Brigham (2000), *Essential of Managerial Finance*, (12th Ed.), the Dryden Press

Stein, C.J., & Scharfstein, S.D. (1997), The Dark Side of Internal Capital Markets, *Divisional Rent-Seeking and Inefficient Investment*, National Bureau of Economic Research

Vintila, N.(2007), Real Options in Capital Budgeting, *Pricing the Option to Delay and the Option to Abandon a Project*, 7(512), pp47-58

Volkman, D.A (1997), A Consistent Yield-based Capital Budgeting Method, *Journal of Financial and Strategic Decision*, 10(3), pp 75-88

Weston, J., & Bringham, E. (1981), *Managerial Finance*, (7th Ed.) Hinsdale, Winston

APPENDICES

Appendix I: List of Companies Samples

	Companies
1	Rea Vipingo Ltd
2.	Sasini
3	Kakuzi Ltd
4.	Access Kenya
5	Marshal's EA
6	Car and General
7	Kenya Airways
8	CMC Holdings
9	Nation Media Group
10	TPS Serena
11	Scan Group
12	Standard Group
13	Safaricom
14	Athi River Mining Ltd
15	BOC Kenya
16	British American Tobacco Kenya
17	Carbacid Investment
18	EA Cables
19	EA Breweries

20	Sameer Africa\Kenya Oil
21	Mumias Sugar Company
22	Unga Group
23	Crown Berger
24	EA Portland Cement
25	Kenya Power & Lighting Company
26	Total Kenya
27	Eveready East Africa
28	KenGen
29	A Baumann & Company
30	City Trust
31	Eaagads
32	Express
33	Williamson Tea Kenya
34	Kapchorua Tea
35	Kenya Orchards
36	Limuru Tea Company

Appendix II: Summary of the Regression Results

Year/Variables	Beta Co-efficient	Sign. (P Value)
Year 2007		
(Constant)	35.920	0.001
Invested amounts	0.731	0.004
Year 2008		
(Constant)	36.645	0.000
Invested amounts	0.761	0.001
Year 2009		
(Constant)	4.179	0.000
Invested amounts	0.502	0.003
Year 2010		
(Constant)	2.204	0.000
Invested amounts	0.550	0.000
Year 2011		
(Constant)	3.918	0.000
Invested Amount	0.579	0.028
Year 2012		
(Constant)	1.182	0.000
Invested Amount	0.639	0.000