

**THE IMPACT OF CAPITAL BUDGETING TECHNIQUES ON THE
FINANCIAL PERFORMANCE OF COURIER COMPANIES IN KENYA.**

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D61/73021/2009**

**A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE
DEGREE OF MASTER OF BUSINESS ADMINISTRATION (MBA),
SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI**

OCTOBER, 2011

DECLARATION

This management 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 project is dedicated in all sincerity, due respect and honour to my dear wife Christine Ngala Dama, daughter Keillar Mariga and my entire family for the support they have accorded me.

ACKNOWLEDGEMENTS

A single person's effort and contributions are without doubt not enough to complete a project of this kind. In this regard, I feel indebted and need to acknowledge the following persons, who contributed in different ways towards the fulfilling conclusion of this project.

First my gratitude goes to my supervisor, Dr. Josiah Aduda for his constant guidance, directions and critics throughout the period.

My heartfelt acknowledgement goes to family members, friends and relatives for their understanding and support during the challenges of the course. In particular I would wish to thank my dear wife Christine dama for her continued love and understanding throughout this challenging time of coming up with this project.

Special thanks goes to mom Sophie and dad Leonard Kalama, bro Fred, sisters Olive and Nancy not forgetting my nephew Ian Hekima for believing in me and all the supports they have given me through to this end, my uncle Gabriel and auntie Olive Hinzano together with family (price, pato and gabi) for urging me on. To my cousin price-you have to take it up from here.

Lots of thanks go to all the respondents who took their time to share their experiences with me in this study. All my colleagues at PCK and MBA Class for the stimulating discourse and resourcefulness. I wish to thank all my lecturers for making the programme a most enjoyable and material one that will equip me with the relevant skills and expertise to compete in the field.

And above all, to God for planting the seeds of education in myself, watering it to germinate and taking care of it while it continued to grow; as well as giving me strength and inspiration to overcome the challenges that have come with the task thus far,. All praise to him.

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ABBREVIATIONS

CF-	Cash flow
DCF-	Discounted cash flow
IRR-	Internal Rate of Return
MRR-	Modified Rate of Return
NPV-	Net Present Value
PI-	Profitability Index
WACC-	Weighted Average Cost of Capital
PB-	Payback Period
Ast Chief A/Ctant-	Assistant Chief Accountant
Mgt Accountant-	Management Accountant
Fin Accountant-	Financial Accountant

ABSTRACT

The Study aimed at establishing the capital budgeting techniques and how those techniques impact to the financial performance of courier companies in Kenya. The questionnaires in the study were distributed in 30 different courier companies in Kenya whereby only one was a state owned company i.e. Postal Corporation of Kenya while the others were privately owned by locals and foreign investors.

The research adopted a causal research design that is experimental and explores the effect of one thing on another and more specifically, the effect of one variable on another. It's used to measure what impact a specific change will have on existing norms and allows market researchers to predict hypothetical scenarios upon which a company can base its business plan.

Several capital budgeting techniques were evaluated for their relationship with the firm's financial performance i.e. Return on assets and findings showed that Profitability index was highly related to the measure compared to other techniques. Methods used to assess risk analysis in capital budgeting were also evaluated e.g. scenario analysis, sensitivity, decision tree and simulation and findings indicated that scenario analysis was used more often by managers in assessing the risk analysis. Managers also preferred using cost of equity in determining minimum rate of return for evaluating appropriate projects that the cost of debts or weighted average cost of capital.

Difficulties faced in capital budgeting process were analyzed in the study and adjusting for the inflation was shown to be the most difficulty of them all. There was a significant relationship between the capital budgeting techniques and the financial performance of courier companies and therefore the project concurred with previous findings and studies.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

According to contemporary financial management theory (Drury, 2004), the goal of the firm is to maximize shareholders' wealth. In order to maximize shareholders' wealth, the following decision-making processes are crucial, and need to be carefully considered. Firstly, the investment decision, which makes sure that the current investment opportunities are utilized to their best potential, results in better future returns for the firm. Secondly, the financing decision, which supports the investment decision, by deciding on possible funds available that, can be utilized in profitable investments opportunities for the future. A part of the investment decision is the question on how funds will be raised and which of the available funds will benefit the firm the most. Thirdly, the dividend decision, which supports the financing decision, by deciding how much of the firm's earnings will be retained for future investments, or distributed to shareholders by way of a dividend.

Capital budgeting decisions do have long term effects and require heavy capital commitments, making them some of the most important decisions in any company. To the company, the decisions does shape both the pattern and growth of future output, constituting one of the most demanding challenges that confronts management , due to the fact that in a wider picture the future benefits are irrevocably determined by the effectiveness of today's capital budgeting decisions .

A good system of capital budgeting does more than just taking accept or reject decisions on individual projects. The system should tie into the organization's long range planning process that decides what lines of the business the firm concentrates in and sets out for financing, production and marketing. Although there is an increase usage of sophisticated techniques, several scholars have claimed that companies are under investing due to misapply of DCF techniques.

Weston and Copeland, (1988) was quoted as saying that the process is quite complex and therefore requires good strategic management, proper planning and heavy expenditure for

research and development. In addition, some very difficult measurement problems were involved. The sales and cost associated with particular projects must be estimated frequently for various years in future in the face of uncertainty. In conclusion, different conceptual and emphatically problems arise over the methods of calculating rates of return and cost of capital.

Capital budgeting is defined by Shim and Siegel (1994) and as the best option and financing decision for long-term investment proposals. Brewer, Garrison and Noreen (2005) further define capital budgeting as an investment analysis done by managers to determine which proposal has the best return in future cash flows.

Investment proposals are options for the firm to invest in long-term assets. Long-term assets are proposals whose future returns extends beyond one year, as opposed to short-term assets, whose future returns are restricted to one year or less. Long-term assets include equipment, machines, buildings and people, amongst others.

Drury (2004) is of the opinion that the investment, financing and dividend decisions are considered by the capital budgeting process as follow: Determining which specific projects a firm should accept, determining the total amount of capital expenditure which the firm should undertake, and determining how the total amount of capital expenditure should be financed

From the above, it is clear that the capital budgeting process is crucial for achieving the goal of maximization of shareholders' wealth. In addition, once an investment is undertaken, it is not easily reversible without a great deal of financial loss to the firm or even a severe decline in the growth of the firm.

1.1.1 Courier Industry in Kenya

A courier is a person or a company who delivers messages, packages, and mail. Couriers are distinguished from ordinary mail services by features such as speed, security, tracking, signature, specialization and individualization of express services, and swift delivery times, which are optional for most everyday mail services. As a premium service, couriers are usually more expensive than usual mail services.

This is a sub-sector with a huge potential considering that the post alone constitutes a global network of more than 660,000 post offices and five million employees, it is a public service which continues to grow and to improve. Each year, courier services all over the world handle and deliver around 436 billion courier items, in their domestic and international services.

The results of a market study of 2007/08 done by CCK which places the sector's worth at Ksh. 7 billion locally, and it is estimated that this will grow to Kshs.17 billion by 2013. This is fairly large contribution to the country's economy. CCK has licensed over 150 courier operators to date. Outlined new features emerging in the sub-sector that include street mobile collection units that promote access to services, door-to door delivery, pick-up services, evolution of telecom financial transfers, adoption of new technologies for tracking and tracing of valued courier items with a view to beating competition. The postal vs. courier segments ratio was 43:57 in 2007 compared to 51:49 in 2001 signifying that the courier segment was growing faster than that of postal.

1.1.2 Financial Performance Measures

Financial Performance of businesses can be measured through the use of accounting information. In cases where accounting information is used then accounting ratios are also employed. Examples include the Return on assets (ROA) and Return on capital employed (ROCE).

1.1.2.1 Return on Assets (ROA)

ROA is an indicator of how profitable a company is relative to its total assets. It gives an idea as to how efficient management is at using assets to generate earnings. Managers must make sure the capital they employ is used productively. Capital is relatively mobile. If it isn't used productively, it will eventually move on to where it can generate a competitive return. ROA provides a measure for assessing the overall efficiency with which firm assets are used to produce net income from operations. It also is indicative of management's effectiveness in deploying capital, because it is certainly possible to be efficient and yet poorly positioned in terms of how capital is being utilized.

Return on assets, is calculated as net of income plus firm interest expense minus the estimated value of any unpaid operator labor. Return on assets is probably the single best overall measure of operating performance.

1.1.2.2 Return on Equity (ROE)

The rate of return on equity (ROE) provides useful information about the performance of debt in the capital structure. ROE is calculated by dividing net income minus the estimated value of any unpaid labor and management by average total firm equity (net worth). ROE should exceed ROA for firms that borrow money. If ROE doesn't exceed ROA, it means that borrowed capital isn't earning enough to pay its cost.

ROE is also a very useful measure of the performance of the equity capital. Managers generally have other alternatives to investing in the firm operation and need a basis for comparing the likely performance of investments in the firm to their investment alternatives. ROE is not a risk-adjusted return measure. So ROE should be adjusted for differences in the perceived riskiness of alternative investments when making head-to-head comparisons. ROE is related to and heavily influenced by ROA. Increasing ROA by taking management action that will either increase operating profit margin and/or asset turnover should have a favorable impact on ROE.

1.1.2.3 Operating Profit Margin (OPM) & Asset Turnover Ratio (ATR)

Operating profit margin is a measure of profit per unit (dollar) of product produced or output. It is calculated by dividing the dollar amount of return on assets by gross firm revenues. A firm operation that has a high operating profit margin percentage is a low cost producer.

Another way to enhance performance is to increase the revenues generated per dollar of firm assets, as indicated by the asset turnover rate.

ATR is calculated by dividing gross firm revenues by the average value of total firm assets. For a given set of firm resources or size of firm, operating profit margin and asset turnover are the two key determinants of profit that the manager must try to influence in order to improve financial performance. An increase in either or both will increase ROA and is generally indicative of improved financial performance.

1.2 Statement of Problem

An important factor that distinguishes the winners from the losers in creating shareholder value is the equality in investment decisions, which in turn depends on the soundness of such capital budgeting techniques (Thaker, 1998). Unfortunately, many organizations make poor investment decisions from investing too little in positive NPV (Net Present Value) projects and much in negative NPV projects, resulting in investment myopia. Thaker, noted that such distortions can distract companies from what they ought to do, causing them to sink million of dollars in wrong products and ideas.

Boquist J.A and Milbourn, T (1998) observed that companies continue to blunder and fail because they have flawed capital budgeting, which they apparently fail to recognize. Some firms sense weakness of their capital budgeting analysis but viewed them as individual problems rather than systematic deficiencies. They misdirect efforts and produce greater frustration. As a result, corporate strategy and capital allocation become misaligned and remain so, despite disapproving financial performance.

Studies done outside Kenya include Moore & Reichert (1989) who in their multivariate study of firm performance and the use of modern analytical tools and financial techniques study in 500 firms in the US, the study showed that firms adopting sophisticated capital budgeting techniques had better than average firm financial performance. A research by Haka, Gordon and Pinches (1985), found out that there was no significant improvements in firms financial performance even though the firm had adopted sophisticated capital budgeting techniques.

Locally studies have been carried out appraise capital budgeting techniques practiced by companies i.e. Njiru (2008) Carried out an appraisal of parastatals budgetary techniques from shareholder point of view. Gitari (2008) study was an evaluation of the role of Board of directors in governance of state corporations. Osoro (2001) studied the budgetary control in NGO's in Kenya. He concluded that strict controls are required in developmental projects which are prone to budget errors and weaker control.

This study differs from earlier ones as it sought to establish specifically the impact of capital budgeting techniques on the financial performance of courier companies in Kenya. It as well contributes to the body of knowledge by appraising capital budgeting techniques and how managers' decisions compliment existing theories.

1.3 Objective of the Study

1.3.1 To establish the capital budgeting techniques used in courier companies in Kenya

1.3.2 To determine the impact of capital budgeting techniques on financial performance of courier companies in Kenya.

1.4 Significance of the Study

Courier Industry

The study is invaluable to the courier company's management in that it provides an insight into the various approaches towards capital budgeting techniques and how it can impact on the financial performance as well as used to incorporate future uncertainties.

Researchers

This study will provide useful information for researchers regarding capital budgeting techniques and its impact on the financial performance of courier companies in Kenya. Other than that, the researchers can also use the study as their basis for further research.

Academicians

The study will be important to academicians who may wish to carry out further research in capital budgeting techniques as this will add more to the existing body of knowledge.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter deals with the definition of the main concepts used in this study. They will be explained below.

2.1 Arbitrage Pricing Theory

It was developed primarily by Ross (1976). It is a one-period model in which every investor believes that the stochastic properties of returns of capital assets are consistent with a factor structure. Ross argues that if equilibrium prices offer no arbitrage opportunities over static portfolios of the assets, then the expected returns on the assets are approximately linearly related to the factor loadings.

Ross' (1976) heuristic argument for the theory is based on the preclusion of arbitrage. Ross' formal proof shows that the linear pricing relation is a necessary condition for equilibrium in a market where agents maximize certain types of utility. A linear relation between the expected returns and the betas is tantamount to an identification of the stochastic discount factor (SDF).

The APT is a substitute for the Capital Asset Pricing Model (CAPM) in that both assert a linear relation between assets' expected returns and their covariance with other random variables. The covariance is interpreted as a measure of risk that investors cannot avoid by diversification.

An empirical test of the APT entails a procedure to identify at least some features of the underlying factor structure. Merely stating that some collection of portfolios is mean-variance efficient relative to the mean-variance frontier spanned by the existing assets does not constitute a test of the APT, because one can always find a mean-variance efficient portfolio. Consequently, as a test of the APT it is not sufficient to merely show that a set of factor portfolios satisfies the linear relation between the expected return and its covariance with the factors portfolios.

2.2 Portfolio theory

It was introduced by Harry Markowitz with his paper "Portfolio Selection," which appeared in the 1952 Journal of Finance. Prior to Markowitz's work, investors focused on assessing the risks and rewards of individual securities in constructing their portfolios. Standard investment advice was to identify those securities that offered the best opportunities for gain with the least risk and then construct a portfolio from these. Following this advice, an investor might conclude that railroad stocks all offered good risk-reward characteristics and compile a portfolio entirely from these. Intuitively, this would be foolish. Markowitz formalized this intuition.

Detailing mathematics of diversification, he proposed that investors focus on selecting portfolios based on their overall risk-reward characteristics instead of merely compiling portfolios from securities that each individually has attractive risk reward characteristics. In a nutshell, investors should select portfolios not individual securities.

If we treat single-period returns for various securities as random variables, we can assign them expected values, standard deviations and correlations. Based on these, we can calculate the expected return and volatility of any portfolio constructed with those securities. We may treat volatility and expected return as proxy's for risk and reward. Out of the entire universe of possible portfolios, certain ones will optimally balance risk and reward. These comprise what Markowitz called an efficient frontier of portfolios. An investor should select a portfolio that lies on the efficient frontier.

James Tobin (1958) expanded on Markowitz's work by adding a risk-free asset to the analysis. This made it possible to leverage or deleverage portfolios on the efficient frontier. This led to the notions of a super efficient portfolio and the capital market line. Through leverage, portfolios on the capital market line are able to outperform portfolio on the efficient frontier.

Portfolio theory provides a broad context for understanding the interactions of systematic risk and reward. It has profoundly shaped how institutional portfolios are managed, and motivated the use of passive investment management techniques. The mathematics of portfolio theory is

used extensively in financial risk management and was a theoretical precursor for today's value-at-risk measures.

2.3 Real Options Theory

In some cases, the word option is associated with investment opportunities in the sense of investment appraisal, rather than financial securities. For instance, the opportunity of investing in industrial infrastructure may be seen as a possibility, but not an obligation to the management.

The word real comes into discussion because the fact that in this context, the potential investments concern real activities or real commodities (non (financial), as opposed to the case of financial instruments. As in the case of capital budgeting problems in general, real options are not tradeable. The expression real options can also be used to describe the way of thinking, in which derivative analysis may be used in approaching real world investment problems as well (Luenberger 1998).

Since the famous Black-Scholes option pricing formula solved the pricing problem of the financial option, the financial option market and the pricing theory of option have gotten considerable progress. Aiming at the imperfection of traditional NPV method in investment decision, Myers, the man who first formally put forward the idea of real option, realized that the option pricing theory could be used to conduct the investment decision on real property project.

Real option, similar to the finance option, is a selectable right of real property investment at the uncertain condition. Compared with the traditional investment decision method, the idea of real option doesn't focus on the forecast of the single cash flow, but the uncertainty of the project, and describes the probability distribution condition of the future cash flow with the language of probability. Therefore, real option is really an extend that the financial option theory expands on the real property investment, a method of thinking drawing the rule of the financial market into enterprise's internal strategy investment decision, a valuable tool to improve the strategy thinking.

The real options approach embraces the concept of uncertainty. There must be uncertainty in terms of future cash flows deriving from the investment, and management must have flexibility to assess this uncertainty as it evolves (Gilbert 2004). As uncertainty is in the core of this approach, investments that can be described as 'cash cow' investments, are well analyzed with existing (DCF-based) techniques.

Real options approach could prove to be beneficial in considering shut (downs and other forms of disinvesting). In fact, these actions are also forms of investment (Dixit and Pindyck 1995); money losing operations have a cost, and assessing these problems with real options approach might prove to be fruitful. Rather than focusing on the costs, identifying the trade offs and alternative costs might pave the way for the wider understanding of the financial consequences of shut downs.

Real options approach holds some drawbacks as well; it is complex, it demands significant computational work and additional data (Akalu 2003). Moreover, communicating real options approach and its findings in a real (life) situation within a company might prove to be challenging, simply because of the general lack of expertise in options theory.

2.4 The capital budgeting process

Capital budgeting is a multi-faceted activity. There are several sequential stages in the process. For typical investment proposals of a large corporation, the distinctive stages in the capital budgeting process are as follows.

Identification of investment opportunities; This is an important step in the capital budgeting process. Project proposals cannot be generated in isolation. They have to fit in with a firm's corporate goals, its vision, mission and long-term strategic plan. Of course, if an excellent investment opportunity presents itself the corporate vision and strategy may be changed to accommodate it.

Some investments are mandatory for instance, those investments required to satisfy particular regulatory, health and safety requirements and they are essential for the firm to remain in

business. Other investments are discretionary and are generated by growth opportunities, competition, and cost reduction opportunities and so on.

Preliminary screening of projects; Generally, in any organization, there will be many potential investment proposals generated. Obviously, they cannot all go through the rigorous project analysis process. Therefore, the identified investment opportunities have to be subjected to a preliminary screening process by management to isolate the marginal and unsound proposals, because it is not worth spending resources to thoroughly evaluate such proposals. The preliminary screening may involve some preliminary quantitative analysis and judgments based on intuitive feelings and experience.

Financial appraisal of projects; Projects which pass through the preliminary screening phase become candidates for rigorous financial appraisal to ascertain if they would add value to the firm. This project analysis may predict the expected future cash flows of the project, analyse the risk associated with those cash flows, develop alternative cash flow forecasts, examine the sensitivity of the results to possible changes in the predicted cash flows, subject the cash flows to simulation and prepare alternative estimates of the project's net present value. Financial appraisal will provide the estimated addition to the firm's value in terms of the projects' net present values.

Qualitative analysis factors in project evaluation; When a project passes through the quantitative analysis test, it has to be further evaluated taking into consideration qualitative factors. Qualitative factors are those which will have an impact on the project, but which are virtually impossible to evaluate accurately in monetary terms. They are factors such as: the societal impact of an increase or decrease in employee numbers the environmental impact of the project possible positive or negative governmental political attitudes towards the project the strategic consequences of consumption of scarce raw materials positive or negative relationships with labor unions about the project possible legal difficulties with respect to the use of patents, copyrights and trade or brand names impact on the firm's image if the project is socially questionable.

The accept/reject decision; NPV results from the quantitative analysis combined with qualitative factors form the basis of the decision support information. The analyst relays this information to management with appropriate recommendations. Management considers this information and other relevant prior knowledge using their routine information sources, experience, expertise, ‘gut feeling’ and, of course, judgments to make a major decision – to accept or reject the proposed investment project.

Project implementation and monitoring; During this implementation phase various divisions of the firm are likely to be involved. An integral part of project implementation is the constant monitoring of project progress with a view to identifying potential bottlenecks thus allowing early intervention. Deviations from the estimated cash flows need to be monitored on a regular basis with a view to taking corrective actions when needed.

Post-implementation audit; Post-implementation audit does not relate to the current decision support process of the project; it deals with a post-mortem of the performance of already implemented projects. An evaluation of the performance of past decisions, however, can contribute greatly to the improvement of current investment decision-making by analysing the past ‘rights’ and ‘wrongs’.

2.5 Capital Budgeting Techniques

The prime task of the capital budgeting is to estimate the requirements of capital investment of a business. Some of the methods are based on the concept of incremental cash flows from the projects or potential investments.

Net present value (NPV) is a technique that determines the present value of the inflows and outflows and then simply takes a difference between the two. If that difference is positive it is considered to be returning the required rate of return and is an acceptable project. If the amount is negative it is not providing a sufficient return and would be rejected.

Internal rate of return (IRR) is simply a variation of NPV in that it attempts to find the discount rate that provides a NPV of zero. If the NPV is positive it is assumed that the actual return is

higher. If the NPV is negative, it is presumed the actual return is lower. By continuously manipulating the discount rate it is possible to hone in on the rate where the NPV is zero.

The profitability index (PI) is another variation of NPV in that it attempts to approximate the results obtained by the IRR without the resultant computations. NPV generally rewards large profits because it is easier for them to generate large NPVs without have a high IRR. The PI adjusts for this by a simple change. In NPV calculations, the present value of the outflows is subtracted from the present value of the inflows giving the NPV. The profitability index takes those same two numbers but instead divides the present value of the outflows into the inflows. If the resultant number is greater than one it is an acceptable project.

The payback is simply the amount of time required for an investment to generate sufficient cash flows to recover its initial cost.

2.6 Risk Analysis in Capital Budgeting

2.6.1 Sensitivity Analysis

Sensitivity analysis uses several possible values for a given variable, such as cash inflows, to assess that variable's impact on the company's return, measured here by the NPV. This technique is often used by financial analysts to get a feel for the variability of return in response to changes in a key variable.

The manager will estimate the NPV in relation to a number of different estimates of cash inflow, which vary from the optimistic case (best) estimates for cash flow, to the base case (expected) estimate of cash inflow, to the pessimistic case (worst) estimate of cash inflow. The NPV range can then be determined by subtracting the pessimistic outcome NPV from the optimistic outcome NPV. Often, by putting forward an NPV range, it helps in allowing business executives to make calculated decisions based on their risk appetite.

2.6.2 Scenario Analysis

This considers both the sensitivity of NPV to changes in key variables as well as the range of likely variable value. Scenario analysis evaluates the impact of simultaneous changes in a

number of variables, such as cash inflows, cash outflows, the cost of capital, or cost growth rates. The combined effects of changes in these variables are then applied to evaluate the impact on the company's return.

For instance, a company could evaluate the impact of a high or low risk-free interest rate environment on a company's NPV. Each scenario will affect the company's cash inflow, cash outflows, and cost of capital, thereby resulting in different levels of NPV. A manager can then use these NPV estimates to assess the risk involved with respect to the interest rate environment.

2.6.3 Decision Tree Analysis

This is suitable for use in multi-stage /sequential decisions where more than one variable may be uncertain and also the value of some variable may be dependent on value of other variables. Decision trees are designed to illustrate the full range of alternatives that can occur. Its logical analysis of a problem enables a complete strategy to be drawn up to cover all eventualities.

2.6.4 Simulation Analysis

In practice it may be necessary to produce separate possibilities for all the alternatives variables affecting project e.g alternative sales revenue outcomes, different items of costs and so on. In addition the cash flow may be correlated over the years e.g. if a new product is successful in the early years then it is also likely to be successful in later years. This situation becomes complex to use a simple decision trees analysis and this problem can be overcome by use of simulation analysis with the aid of a computer.

To carry out this analysis, a company must follow 3 steps.

Estimate the range of values for each of the factors and within that range the likelihood of occurrence of each value.

Select at random from the distribution of values for each factor one particular value. Then combine the values for all the factors and compute the rate of return from that combination.

Do this over and over again to define and evaluate the odds of the occurrence of each possible rate of return.

2.7 Empirical Studies of capital Budgeting Techniques

Grahams and Harvey (2002) carried out a study that considered the executive characteristics and identified areas where theory and practice are consistent in capital budgeting decisions. In that observation they found out that CFOs take a prominent role in enterprise decision making and corporate governance, acting as advisors, rather than just as an information provider. The choice of evaluation techniques than was found to be linked to the firm size and executive characteristics.

Crinsean and Tolwsky (2004) carried out a survey to determine the role of board of directors in capital budgeting process. The study was carried out in the United States of America. The period under study was from 1995 to 2000 and the sample consisted of 500 firms. Their final sample consisted of 2, 262 firms after excluding financial institutions due to their special governance regulations and requirements.

Harvey Arbel'aez (2004) performed a survey of capital budgeting practices. This study observed that corporate governance practices have been widely appreciated and used in capital budgeting appraisal decisions of corporations in Latin American firms.

These findings on corporate executives shedded the light on the methods used in companies to evaluate investment projects, make capital budgeting decision, consider adjustments needed and make an appraisal of the overall interaction of factors related to strategic capital budgeting .

Pradeep and Quesada (2008), study on the use of capital budgeting techniques in business in the western cape province of south Africa, perform some investigations on a number of variables and associations relating to capital budgeting practices .Sample size of the study included 600 firms under which only , 211 were interviewed successfully giving a response rate 35%.

The study adapted a descriptive approach to the research findings. Analysis of the data collected was carried out using SPSS software and a chi square test techniques use to measure the relationship between the variable .

Uddin and Chowdhury (2009) study was to find out whether capital budgeting theory of large business is well applicable for the small business or not. They were for the idea that if it is not, then further development of theory becomes necessary.

Findings showed there was no well accepted standard definition of small business that might be used to create the basis of applying the theory of capital budgeting. They also found out that the reasons for the inapplicability were lack of knowledge, size and availability of capital, tendency of high reliance on easy techniques like payback period.

Ross (1986) study of capital budgeting for discretionary projects at 12 firms in the process industry. Findings were that, while discounted cash flow techniques are normally used at most of the firms. It is critical to know if whether calculations carried out incorporates essential details and whether it is a DFC criterion or simple payback that is basically relied upon. Findings also indicated that project approval at many firms follow different criteria depending on the laws of decision.

Haynes and Solomon (1963)in these article “a misplaced emphasis on capital budgeting” based on detailed research on small business investment, produces literature that shows that small firms often do neglect the early stages of capital budgeting decision making process. However, this neglect is less likely in larger companies which have definite procedures for finding investment opportunities and developing information.

Petty and Scott (1980) presented an analysis and review of several studies that dealt with the integration of investment theory into investment practice. They analyzed findings of a total of 17 capital budgeting survey from 1960 to 1979. They also showed findings from a new study of investment decision making practice derived from responses to questionnaires sent to CFOS of each firm listed in May 1977 delivery of fortune “500” firms .

Findings indicated that the financial objective of large companies is the firm's return on investment, the initiation of new projects continues to be a bottom up process and finally that the internal rate of return has unequivocally maintained its favored position as compared to other techniques.

Olum (1976) sought to investigate whether a solution has been reached for the lack of specific appraisal techniques for projects to be partly undertaken and partly owned by the corporation on the behalf of the whole society and partly undertaken and partly owned by private investors.

The researcher examined how the public corporations in Kenya, the Industrial and Commercial Development Corporation and the Kenya Tourist Development Corporation had solved the problem of how to appraise partly public and private projects. Findings indicated that the two corporations had not tackled the problem of appraising partly private and partly public projects.

Kadondi (2002) performed a survey on capital budgeting techniques used by companies listed at Nairobi stock exchange. The study objectives was to found out the capital budgeting used in investment appraisal by corporations in Kenya and determine if those techniques used confirm the existing theory and practices of organizations in those developed states.

Njiru (2008) carried out a study and looked at the capital investment appraisal from the point of view of shareholder wealth maximization and wanted to find out the most commonly used capital investment appraisal technique by commercial Parastatals and also determine the factors that influence the choice of technique used. Findings showed that factors influencing choice of technique was the amount of funds regarded for investment, size of the organization, industry practices and government policies.

Oyaro (2009) studied the capital budgeting techniques for insurance companies in Kenya. The research reviewed that discounted cash flow methods were preferred to the simpler methods

like IRR, ARR and payback .Gitari (2008) study was an evolution of the role of BOD in governance of state corporations.

2.8 Conclusions

Capital budgeting can be a useful tool in the analysis of large projects. However, there are serious limitations that must be considered when evaluating the results of these projects. These limitations can be used to manipulate the results of an otherwise unfavorable project and make it appear to have a larger return than it actually has. While the weaknesses in these sample projects are obvious, they can be effectively hidden in larger projects where the descriptions and financial data can run into hundreds of pages.

The objective of this study is to determine the capital budgeting techniques in courier companies in Kenya and the impact of those controls on the financial performance. In literature, it has been argued that the use of capital budgeting techniques be either positively or negatively related to the improved financial performance. A significant number of studies indicate that modern budgetary control systems had a positive relationship with Return on Asset while the Traditional methods showed a negative relationship. Some studies portray capital budgeting techniques not being a perfect tool hence indicating that the mere adoption of several of capital budgeting techniques systems is not sufficient to bring about superior performance and that other factor such as willingness to cooperate and teamwork from all departmental managers e.t.c may have greater impact on profitability.

Capital Budgeting techniques are therefore found to be an important part in strategic planning for corporations and by extensions on executives who make such decisions. This study differs from other local studies in that it tries to establish the correlation between capital budgeting techniques and financial performance of courier firms in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter highlights on the research methods used in gathering information, the research design used, the population, sample size, data collection tools and the data analysis process. In addition, it illustrates the area of examination with regards to those interviewed.

The research will focus on the budgetary techniques with an aim of determining its impact on the financial performance of courier companies in Kenya.

3.2 Research Design

The study used causal design which is experimental. To ensure greater variety of the data collected, the researcher adopted a cross-sectional survey method involving the Courier firms in Kenya. Selected participants' view (owner/managers) from the Courier Companies was the focus of interest. The design involved collecting, analyzing data and reporting accordingly. Part of the questionnaire was used to collect qualitative data which supplemented the numerical part to answer detailed critical questions of the study like impact of budgetary techniques on financial performance of companies.

3.3 Population

In this study, the population consisted of 100 courier companies in Kenya as at 30th June 2008. CCK had licensed over 100 courier operators and were grouped into different categories i.e. Public Postal International In-bound operators ,International operators, Regional Operators, Intra-country Operators ,Intra-city Operators, Document Exchange operators.

According to Cooper and Schindler (2001), a population is the total collection of elements about which we wish to make some inferences.

3.4 Sample

The sample size of the study was 30 courier firms selected from the 100 firms licensed by CCK in the Year 2008. A combination of systematic and random sampling methods was used in selecting the enterprises. Random sampling was used in selecting the first element after which

systematic method was thereafter applied i.e. every nth element picked for inclusion into the sample. The targeted subjects were business managers and/or owners or employees.

3.5 Data Collection

The data collection was collected through questionnaires based on budgeting process in operation within the organization. Questionnaires were completed by the officer directly involved with capital budgeting techniques in the organization. Actually we used an open questionnaire so as to get diverse view of the staffs subjected to the process. The questionnaires were designed to collect the relevant information from pre-determined key respondents of the courier industry. The main thrust of the Questionnaire was to seek their opinion on the impact of capital budgeting techniques and if they had heard about budgets, its potential benefits, disadvantages etc.

3.6 Data Analysis

This involved the preparation of data collected into useful, clear and understandable information. Data analysis and processing involved coding, editing and tabulating. The data collected from the field was analyzed and processed into meaningful and relevant information guided by the objective of the study. The response from the questionnaire was accorded percentages to facilitate analysis. Statistical Package for Social Science (SPSS) version 15 was used to analyze the primary data that had been collected. Content analysis technique was used to process secondary and qualitative data for the study. Qualitative data was analyzed by comparison to findings already known and conclusions made depending on how the findings related to the research questions. Data was then presented in headings and raw data then transformed into information. To better the understanding of the findings, the information was presented into percentages, pie charts and tables with an analysis as discussed in chapter four.

Regression analysis was used to test the impact of capital budgeting techniques on the financial performance. The study employed a model used by olawale, F et al.

$$ROA = - \alpha + \beta_1 PB + \beta_2 NPV + \beta_3 IRR + \beta_4 MRR + \beta_5 PI + \beta_6 cont + \epsilon$$

Where

PB = Effect in shilling of Payback period

NPV = Effect in shilling of Net present value

IRR = Effect in shilling of Internal rate of return

MRR = Effect in shilling of Modified rate of return

PI = Effect in shilling of Profitability Index

Cont = is a vector of control variable

α = a constant

ϵ = Represent Error term

$\beta_1, \beta_2, \beta_3, \beta_4$ & β_5 =Regression coefficient

3.7 Data Reliability and Validity

Reliability of measures was assessed by use of cronbach's alpha. It allows for measurement of reliability of the different categories. It consists of estimates of how much variation in scores of different variable is attributed to chance or random errors.

Allen & Yen (1979) describes validity as the extent to which the instrument measures what it purport to measure. Content validity pertains to the degree which the instrument fully assess the construct of interest. There were various ways used to establish the validity of the data collected, and they included interviewer corroboration, as well as peer debriefing, and conformability to ensure that the overall goal of the process was to provide findings that were authentic, and original.

CHAPTER FOUR: DATA ANALYSIS & PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents analysis and findings as per the objective and discussion of the research topic. The objective of this study was to establish if there existed capital budgeting techniques and their impact on the financial performance of the courier companies in Kenya. Data collected from the companies in the courier industry presented findings in Pie charts, frequency distribution tables, histograms and narrations.

4.2 Data Presentation

4.2.1 Response Rate

Out of the 30 questionnaires distributed by the researcher only 21 were filled and returned to back, this represented approximately 70% of the sample. This was a satisfactory response rate that warranted the research to be analyzed and concluded.

4.2.2 Distribution of Respondents by Positions they held within the Firm

The respondents in the study held different position within their firms as indicated in the table below. A large proportion of them were management accountants who were represented by 47.6 % followed by financial accountants with 28.57% then chief accountants 9.52% and finally followed by Assistant chief accountants, Assistant managers and Finance managers all sharing the remaining percentage equally of 4.76%.

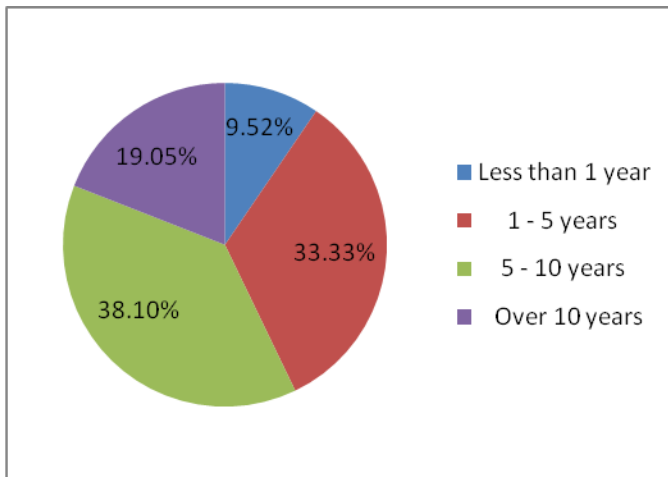
Table 4.2.2: Distribution of Respondents by Positions they held within the Firm

q2_posit	Freq.	Percent	Cum.
Ast Chief A/c	1	4.76	4.76
Ast Manager	1	4.76	9.52
Chief A/ctant	2	9.52	19.05
Fin A/ctant	6	28.57	47.62
Fin Manager	1	4.76	52.38
Mgt A/ctant	10	47.62	100

4.2.3 Distribution of Respondents by the years they have worked for the Company

The proportion of respondents who have worked for the company between 5-10 years were many and represented 38.10% of the total respondents, followed by those who had worked for between 1-5 years with a percentage of 33.33%. Those who worked for over 10 years were very few with a percentage of 19.05% followed by those who had less than 1 year experience with the company.

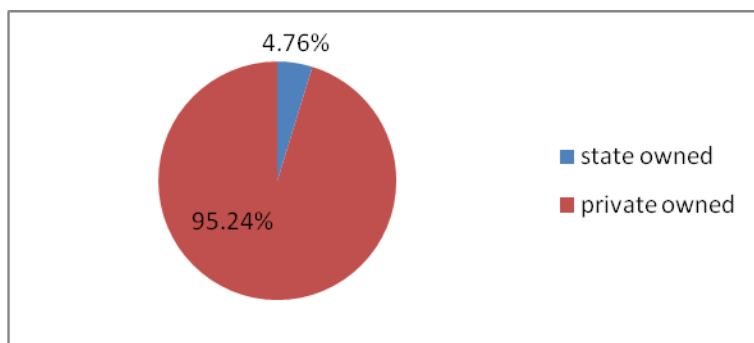
Figure 4.2.3: Years worked for the Company



4.2.4 Distribution of Respondents Companies with their Legal Ownership Status

A large proportion of the companies interviewed was privately owned and represented an entire 95.24% of the total sample and the remaining was state owned with a percentage of 4.76%.

Figure 4.2.4: Legal Ownership Status



4.3 Presence of Capital Investment Manual

This showed whether there existed a capital investment manual within the companies interviewed. 11 respondents out of the 21 representing 52.38% showed that there did not exist an Investment manual while the rest comprising of 47.62% showed that investment manual existed in their companies.

Table 4.3: Presence of Capital Investment Manual

q5_capit	Freq.	Percent	Cum.
Yes	10	47.62	47.62
No	11	52.38	100

4.3.1 Latest Copy of the Capital Investment Manual

Of the capital investment manual present within the companies 33.33% represented those that related to the year 2008 which is recent while 22.22% were for the year 2005 which is old. The other years shared equally with a representation of 11.11%.

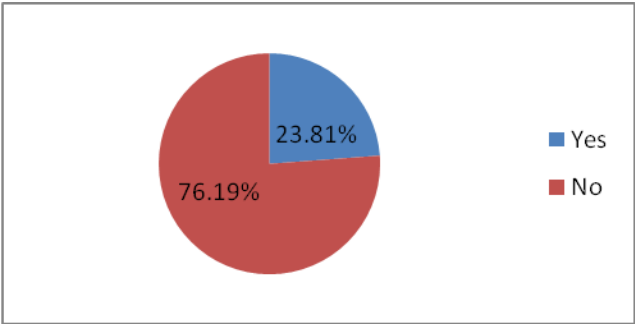
Table 4.3.1: Latest Copy of Capital Investment Manual

q6_year	Freq.	Percent	Cum.
2004	1	11.11	11.11
2005	2	22.22	33.33
2006	1	11.11	44.44
2007	3	33.33	77.77
2008	1	11.11	88.88
2009	1	11.11	100

4.3.2 If Company is Foreign

76.19% of the respondents said that their companies were not foreign companies hence implying them to be local companies while the rest 23.81% showed theirs to be foreign companies who worked in the country.

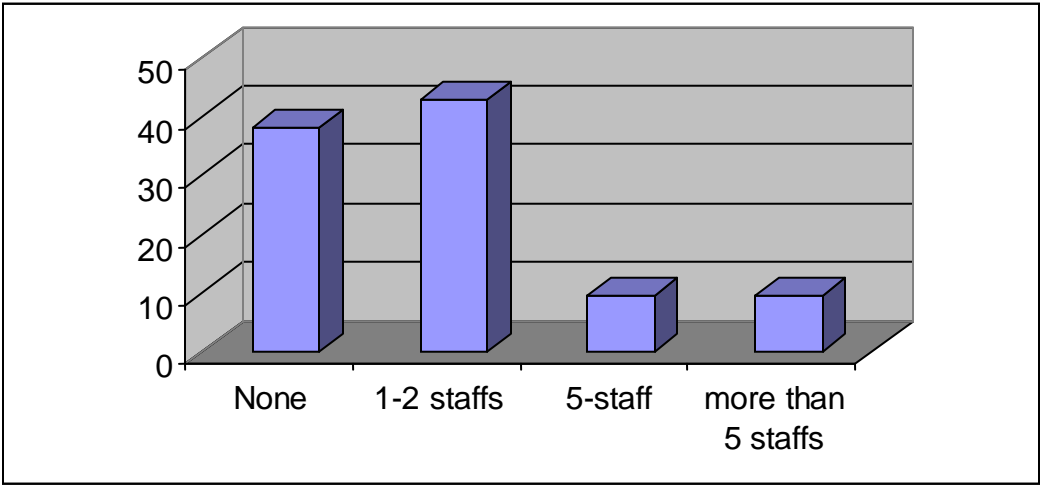
Figure 4.3.2: If Company is Foreign



4.3.3 Staffs Assigned full time to Capital Investment Analysis

Most companies assign between 1-2 staffs to capital investment analysis with a percentage of 42.86% followed by those who assign no staff in the capital investment analysis with a percentage of 38.10%. Companies that assign between 3-5 staffs and those that assign more than 5 staffs in capital investment analysis shared the remaining percentage each acquiring 9.52%.

Figure 4.3.3: Staffs Assigned in Capital Investment Analysis



4.4 Request for Capital Expenditure Submission Guidelines

76.19% of respondents were for the idea that their companies had guidelines on how to request for capital expenditure should be submitted while the remaining 23.81 were against that idea.

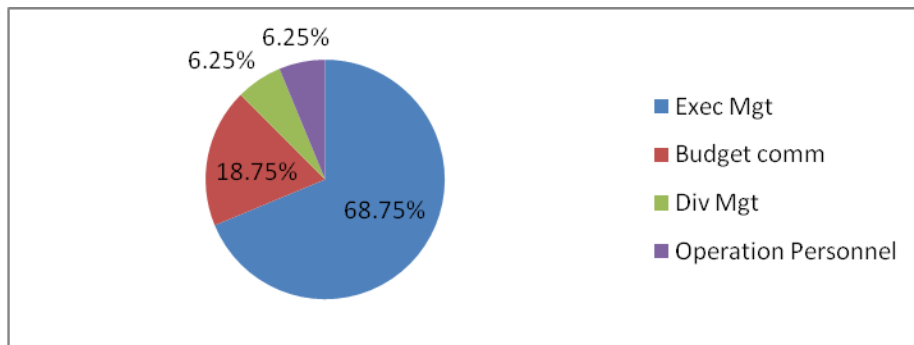
Table 4.4: Request for Capital Expenditure Submission Guidelines

q9_guide	Freq.	Percent	Cum.
Yes	16	76.19	76.19
No	5	23.81	100

4.4.1 Who Produced the Guidelines?

A large proportion of the respondents said that the executive management was the one responsible for producing the guidelines with 68.75% followed by those who believed that budget committee was responsible for the same with an 18.75%. The rest was shared equally among those who believed divisional managers and operating personnel were responsible with 6.25% each.

Figure 4.4.1: Who Produced the Guidelines



4.4.2 Who Analyses and Reviews Business Case request for Capital Expenditure

55% of respondents being the highest were for the idea that executive management analyzed and reviewed business case request for capital expenditure followed by 25% who believed budget committee was responsible for the same. Respondents who believed operating personnel were responsible came next with 10% followed by those who chose divisional managers and others, these two groups shared equally each 5%.

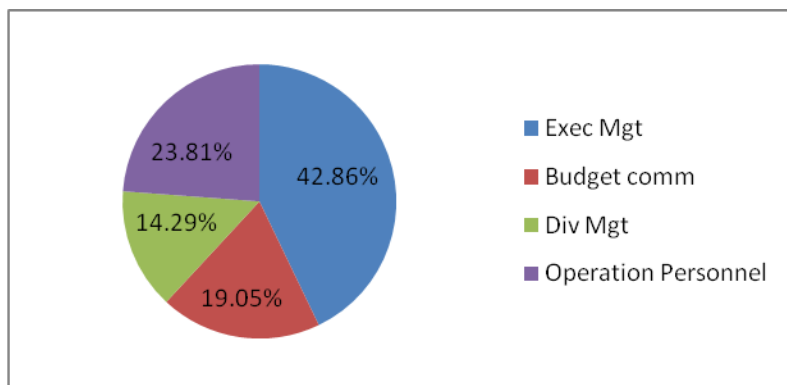
Table 4.4.2: Who Analyses and Reviews Business Case request for Capital Expenditure

q11_who	Freq.	Percent	Cum.
executive management	11	55.00	55.00
budget committee	5	25.00	80.00
divisional manager	1	5.00	85.00
operating personnel	2	10.00	95.00
Others	1	5.00	100

4.4.3 People who Originate Capital Budgeting Proposal

Almost half of the respondents represented by 42.86% said that executive management originated the capital budgeting proposal, followed by 23.81% who said that operating personnel were responsible for the same with those believing that budget committee and divisional managers were responsible sharing 19.05% and 14.29% respectively.

Figure 4.4.3: People who Originate Capital Budgeting Proposal



4.4.4 Technique the Companies Favored

47.62% of the respondents favored profitability index more than all the other capital budgeting techniques with the next favored being payback period having a percentage of 19.05%. The other technique coming third was the net present value with 14.29% and lastly both internal rate of return and modified rate of return came forth each sharing equally 9.52%.

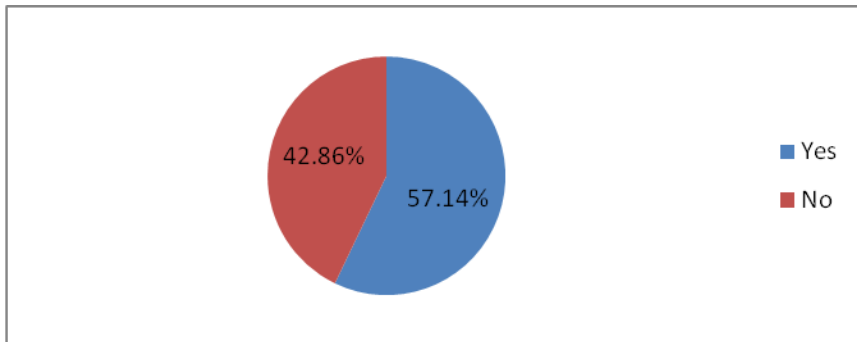
Table 4.4.5: Technique the Companies Favored

q14_ whic	Freq.	Percent	Cum.
Pb	4	19.05	19.05
Npv	3	14.29	33.33
Irr	2	9.52	42.86
Mrr	2	9.52	52.38
Pi	10	47.62	100

4.4.5 Major switch Between the Techniques

Most respondents were for the idea that their companies had switched from one capital budgeting techniques to the other represented by 57.14% while the rest were against the idea with a stake of 42.86%.

Figure 4.4.5: Major switch Between the Techniques



4.5 If company use any Technique to Assess a Project’s Risk

95.24% of the respondents agreed that indeed their companies’ uses some techniques when assessing a project’s risk while those who stated for sure their companies did not use any techniques comprised of only 4.76%.

Table 4.5: If company use any Technique to Assess a Project’s Risk

q11_ who	Freq.	Percent	Cum.
Yes	20	95.24	95.24
No	1	4.76	100
Totals	21		

4.5.1 Techniques Companies use to Assess a Project's Risk.

Of those companies that used some techniques to assess project's riskiness 55% used scenario analysis while 20% used sensitivity analysis and another 20% used simulation and finally 5% used decision tree method to assess its project riskiness.

Table 4.5.1: Techniques Companies use to Assess a Project's Risk

q14_whic	Freq.	Percent	Cum.
scenario analysis	11	55.00	55.00
sensitivity analysis	4	20.00	75.00
decision tree	1	5.00	80.00
Simulation	4	10.00	90.00
Totals	20		100

4.6 Approach used to Determine Minimum Acceptable Rate of Return

52.38% of the respondents used cost of equity to determine minimum acceptable rate of return to evaluate proposed capital investment analysis. 23.81% used weighted average cost of capital while only 9.52% used the cost of debt approach. A significant proportion of 14.29% of respondents used an arbitrary chosen figure to determine the rate of return that evaluates proposed capital investment analysis.

Table 4.6: Approach used to Determine Minimum Acceptable Rate of Return

q18_appr	Freq.	Percent	Cum.
Wacc	5	23.81	23.81
cost of debt	2	9.52	33.33
cost of equity	11	52.38	85.71
arbitrary chosen figure	3	14.29	100
Totals	21		

4.6.1 Difficulties Faced in Capital Budgeting Process

47.62% of respondents named adjusting for inflation as one of the difficulties faced in capital budgeting process while 28.57 said incorporating risk was also one of them, followed by determining discount rate at 14.29% and estimating cash flows at 9.52%.

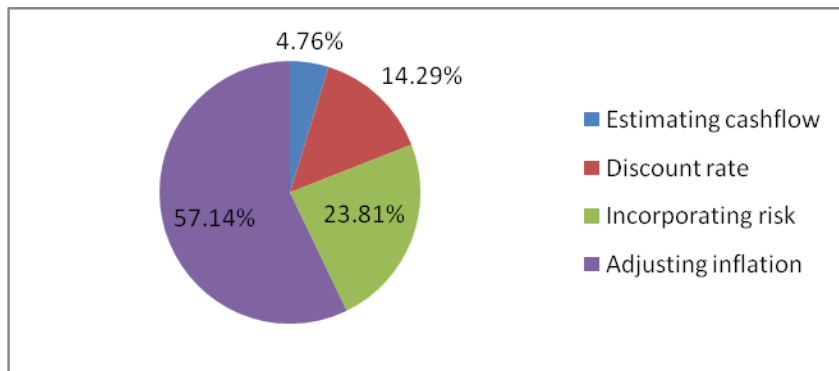
Table 4.6.1: Difficulties Faced in Capital Budgeting Process

q19_diff	Freq.	Percent	Cum.
estimating cashflows	2	9.52	9.52
determine discount rate	3	14.29	23.81
incorporate risk	6	28.57	52.38
adjusting for inflation	10	47.62	100.00
Totals			

4.6.2 Most Challenging difficulties in Capital Budgeting Process

57.14% of the respondents were of the opinion that adjusting for inflation was the most challenging difficulties in the capital budgeting process. This was followed by incorporating risk with 23.81%, determining discount rate with 14.29% and lastly estimating cash flows with 4.76% of respondents thinking it is the most challenging of them all.

Figure 4.6.2: Most Challenging difficulties in Capital Budgeting Process



4.7 Capital Budgeting Process as a Strategy for Achieving Competitive Advantage

85% of respondents were of the idea that their capital budgeting process posed as a strategy for their achieving a competitive advantage over competitors while the rest 15% were against that idea hence believed that their capital budgeting process did not pose to be a strategy for achieving their competitive advantage over their competitors.

Table 4.7: Capital Budgeting Process as a Strategy for Achieving Competitive Advantage

q21_proc	Freq.	Percent	Cum.
Yes	17	85.00	85.00
No	3	15.00	100

4.8 Correlation and Regression

It means that when two predictor variable are deemed correlated when this coefficient of correlation are greater than 0.5. In such a case, one variable should be dropped from the model.

In the table below none of the predictor variable had coefficient of correlation between themselves more than 0.5 hence none of them will have to be dropped.

Hence the results below shows that none of the predictor variable is greater than 0.5 thus correlation present.

Coefficient Results

	<i>PB</i>	<i>NPV</i>	<i>IRR</i>	<i>MRR</i>	<i>PI</i>
<i>PB</i>	1				
<i>NPV</i>	-0.08589	1			
<i>IRR</i>	-0.6413	-0.34304	1		
<i>MRR</i>	-0.72256	-0.48408	0.637167	1	
<i>PI</i>	0.338898	-0.08478	-0.70721	-0.37636	1

Source (Raw data by researcher)

Regression Results

<i>Regression Statistics</i>	
Multiple R	0.889267
R Square	0.790796
Adjusted R Square	0.675995
Standard Error	6.579678
Observations	21

Source (Raw data by researcher)

The model strength can be measured by R2 therefore in this study the R2 equals 0.790 indicating that constant, payback period, net present value, internal rate of return, modified rate of return and profitability index explains 79% of ROA leaving only 21% unexplained.

The P-value of 0.0000795 implies that the model of ROA is significant at 5% significance since the value is less than 0.05.

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	2618.325	523.6651	12.09607	7.95E-05
Residual	16	692.6747	43.29217		
Total	21	3311			

Source (Raw data by researcher)

ANOVA findings in table above shows that there exist a correlation between the predictor variables(cont, pb, npv, irr, mrr, pi) and response (ROA) variable factors influencing financial performance since P-value of 0.0000795 is less than 0.05

Regression Model

$$Y=0.0000795+4.900465X_1 +14.06763X_2+4.785248X_3-3.12125X_4+25.65716X_5$$

Meaning that;

Constant=0.0000795, indicates that if cont, pb, npv, irr, mrr and pi were all rated as zero then Return on Assets rating would be 0.0000795.

$X_1= 4.900465$ indicates that one unit change in PB results in 4.900465 units increase in Return on Asset.

$X_2=14.06763$ indicates that one unit change in NPV results in 14.06763 units increase in Return on Asset.

$X_3 = 4.785248$ indicates that one unit change in IRR results in 4.785248 units increase in Return on Asset.

$X_4 = -3.12125$ indicates that one unit change in MRR results in units 3.12125 decrease in Return on Asset.

$X_5 = 25.65716$ indicates that one unit change in PI results in 25.65716 units increase in Return on Asset.

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	4.900465	17.3607	0.282273	0.781353	-31.9026	41.70351	-31.9026	41.70351
X Variable 2	14.06763	15.72182	0.894784	0.384166	-19.2611	47.39639	-19.2611	47.39639
X Variable 3	4.785248	23.10815	0.20708	0.83856	-44.2018	53.77234	-44.2018	53.77234
X Variable 4	-3.12125	26.15415	-0.11934	0.906491	-58.5656	52.32307	-58.5656	52.32307
X Variable 5	25.65716	21.7458	1.179867	0.255299	-20.4419	71.7562	-20.4419	71.7562

4.9 Summary and Interpretation of Findings

The findings analyzed showed that most of companies interviewed were privately owned and a smaller portion represented state owned company which is the postal corporation of Kenya but with coverage of operation throughout the country.

Also analyzed was that almost half the respondents showed that there were no Investment manual present in their companies. This is a very shocking situation in that investment manuals are very critical for a company in making investments plans and actions hence companies needs to embrace such if they aspire to be competitive and make sound investment decisions.

Most companies assign less or no staffs at all to capital investment analysis hence therefore may impact negatively to the key investment decisions that the company would have otherwise capitalize on them thereby resulting to financial losses. Atleast majority of respondents indicated that there exist guidelines for how request for capital expenditure should be submitted.

A majority of respondents indicated that executive management analyzed and reviewed business case for capital expenditure, this is evidently since more than half of respondents were for the idea that executive management analyzed and reviewed business case request for capital expenditure while the others were not for that idea.

Executive management was seen to be the kind of people that originate the capital budgeting proposal. This is the reserve of how things ought to have be since the people who experience the need to have something should be the one to come up with such a proposal. These are the people that know the right specifications and type hence best suited to make a demand or proposal.

Findings also showed that close to half the respondents favored profitability index more than all the other capital budgeting techniques with the next favored being payback period having a an equivalent proportion of close to a fifth of the respondents supporting it. The other technique that came third was the net present value followed lastly by both internal rate of return and modified rate of return came forth each sharing equally the remaining percentage.

Analyzing the criteria used in determining the minimum rate of return indicated that almost half the respondents used cost of equity while a quarter preferred weighted average cost of capital ,to the cost of debt approach. Another group of respondents chose to prefer and used an arbitrary chosen figure to determine the rate of return that evaluates proposed capital investment analysis.

A significant number of people believed that their capital budgeting techniques process acted as a strategy to gaining competitive advantage over its competitors. This was as a result of 85% of respondents who were of the idea that their capital budgeting process posed as a strategy for their achieving a competitive advantage over competitors while the rest 15% were against the idea.

The study used regression analysis to find the relationship between budgetary techniques and financial performance of courier companies in Kenya. The findings indicated the model was significant since in the analysis R^2 was 0.790 which means it support the relationship 79%. All predictor variables were linear related with the dependent variable hence the model of 5 variables (pb, npv, irr, mrr, pi) could be used to forecast ROA of courier companies.

In the ranking of individual independent variables indicating that profitability index is highly indicated with ROA followed by net present value, payback period, internal rate of return, modified rate of return and controlled variable respectively.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The main objective of this study was to determine the capital budgeting techniques and their impact on the financial performance of courier companies in Kenya. This called for a detailed study and conclusions were presented after all results analyzed using SPSS version 17.

The researcher chose to carry out a study on the courier industry because of its competitiveness' and how it has emerged to be a very ripe area for investment by private investors within the environment. The population targeted was 100 courier companies licensed by CCK by the year 2008, and the response rate was approximately 70% hence a satisfactory level to call for the progression of analyzing and concluding the study.

The Communications Commission of Kenya has a mandate to protect consumers of communication services with respect to the prices charged for and with regard to the quality and variety of said services. In order to better fulfill this mandate, and as the regulator of postal and courier services in Kenya, the Commission has embarked on a consumer education program focusing on consumers of Postal and Courier Services. The Campaign is geared towards equipping consumers with skilled, information and knowledge that would enable them make better choices in the Postal and Courier Market.

Findings indicated that most companies preferred the profitability index technique than any of the other capital budgeting techniques that was tested in the questionnaires followed by the payback techniques which a significant number of companies also preferred.

Findings indicated that all the five techniques in the study were used by the courier companies but preference was made to profitability index technique. Relationship between capital budgeting techniques and financial performance, with the help of the earnings before interest and taxes and total assets collected from CCK analyzed using SPSS version 17 showed a positive relationship

meaning these techniques do relate positively with the financial performance of the courier companies.

The Study used multiple analysis to find association between capital budgeting techniques and financial performance of the courier companies. Forecasting model development and tested for accuracy in obtaining predictions.

5.2 Conclusion

The purpose of the study was to determine the capital budgeting techniques used and their impact on financial position of the courier companies within Kenya.

In the courier sub-sector, there was marginal growth in the local and during the period. Previous periods recorded a decline in this service, and indication that the telecommunication sector has had an impact on the courier sub-sector. Development of new products and services to meet new customer's demands and expectations as well as utilization of ICTs could play a key role in shaping the future.

According to this study more than half of the respondents favored scenario analysis when performing risks analysis. The drawback for today's managers is that accept-reject decisions may be biased in favour of high-risk investment and against low-risk investments will be accepted and good low risk investment rejected. This is because managers do not consider equally the two sides of the coin before impacting on a certain alternative; they only focus on one side. Managers who have vast knowledge on investment will perform the cost benefit analysis which will be able to bring out a worthiness investment from the unworthy ones hence thereby helping the managers in making decisions.

The correlation performed during the analysis of the data collected showed that there existed a correlation between the variables and the model strength was seen a strong in that the R² was seen to explain higher percentage of the variables hence indicating the strength.

The regression analysis shows that capital budgeting techniques affect financial performance of the courier companies measured by ROA. In the ranking of variables P1 is highly related with ROA followed by Payback period. Generally the application of capital budgeting techniques should increase effectiveness of the company's investment decision-making. Therefore, the result of the study was in agreement with the theory and other previous studies.

5.3 Policy Recommendations

There is need for adequate training and skill development to the workforce especially those in the financial sectors in areas of capital budgeting techniques and investment since from the study conducted most workers seem not to be well conversant with the area hence consultants need to come on board to provide assistance.

There is generally a low level of financial literacy on the workforce that needs to be boosted if any changes are expected to come forth. Staffs need to appreciate the expertise involved especially those at the finance and accounting division.

Employee participation in making investment decisions that affect their duties should be advocated so that policies are able to be down up and not the usual case of top bottom as it is in many companies hence resulting to lower morale of staffs at the work place.

Management should assign staffs on full time basis at the capital investment analysis so as to be able to make sound decisions at the right time and place thereby increasing the firms benefit from proper investment alternatives chosen.

There is need to ensure that proper working tools are in place for any work to be carried out effectively and efficiently. Therefore management should ensure that a capital investment manual is put in place to give guidance on how capital expenditure should be carried out. In situations that manuals do exist then proper updating of the same is critical.

Management should be able to device better methods of improving employee participation so as to build team work and thus increasing the profitability of their companies.

5.4 Limitations of Study

The Population was not easily accessed due to various reasons some including their existing company policies and bureaucracy regarding information outflow which posed to be a very big challenge to the study.

The Respondent mostly from private company were reluctant to give away information about their operation due to sensitivity of the information involved since leakage of such information may lead to losses if accessed by competitors who are within the same industry.

Reliability of data obtained might be inaccurate due to the possibilities of respondents in the study misunderstanding some of the questions and or terminologies used in the questionnaires by the researcher.

5.5 Suggestions for Further Studies

Further studies required to test relationship between capital budgeting techniques and firm performance by use of different firm financial performance measurement other than ROA e.g. other researchers may decide to use earnings per share.

More investigations can also be carried out to find out of whether capital budgeting techniques reported to be used by these companies are actually applied correctly especially application of risk adjustment methods e.g. seniority

Further studies could also be focused on other industries available in the market such as the oil industry, transport industry, parastatals e.t.c so as to see if results may turn out to be homogeneous

Researchers could also decide to use a greater sample than the one used in this study so as to see if results will change or will remain the same thereby adding on the existing body of knowledge within the future studies

REFERENCE LIST

- Akalu, M (2003) The Practice of Investment Appraisal (July 2003, 01).
- Allen, M.J., & Yen, W. M. (1979). *Introduction to Measurement Theory*. Long Grove, IL: Waveland Press.
- Block, S.B. & Hirt, G.A. (1987). *Foundations of financial management* (4th Ed.). Homewood, IL: Irwin.
- Boquist, J.A., Milbourn, T, (1998). *How Do You Win the Capital Allocation Game?* Sloan Management Review, Vol. 39, Issue 2, 59-71.
- Brewer, P.C., Garrison, R.H. & Noreen, E.W. (2005). *Introduction to managerial accounting* (2nd ed.). New York, NY: McGraw-Hill.
- Brigham, E.F. (1986). *Fundamentals of financial management* (4th ed.). New York, NY: CBS College Publishing.
- Cooper, P.S. & Schindler, D.R. (2001). *Business Research Methods*. Seventh Edition. New York, NY. McGraw-Hill. GV 658.0072 COOPER, p. 95.
- Copeland, T.E., and J.F. Weston (1988), *Financial Theory and Corporate Policy year: 1988*. Volume/Edition: 3rd edition.
- Dixit, Avinash K. & Pindyck, Robert S., (1995). "The new option view of investment," Working papers 3794-95., Massachusetts Institute of Technology (MIT), Sloan School of Mgt
- Drury, C. (2004). *Management and cost accounting* (6th ed.). London: Thomson Learning. 102
- Garrison, R.H., Noreen, E.W. & Seal, W. (2003). *Management accounting*. New York, NY: McGraw-Hill.
- Gilbert J. (2004). Beyond 'what if': A risk-oriented capital budgeting model. *Journal of Information Systems* (Spring): 53-64.

- Gitari M. J. (2008) *Corporate Governance and the Financial Performance of State Corporations: The Case of New Kenya Co-operative Creameries (kcc)* Unpublished MBA Project, University of Nairobi, School of Business.
- Grahams, J. R., and C. Harvey, (2002), How Do CFOs Make Capital Budgeting and Capital Structure Decisions?, *Journal of Applied Corporate Finance*
- Haka, S. F., L. A. Gordon and G. E. Pinches.(1985). Sophisticated capital budgeting selection techniques and firm performance. *The Accounting Review* (October): 651-669.
- Hansen, D.R. & Mowen, M.M. (1997). *Management accounting* (4th ed.). Cincinnati, OH: South-Western College Publishing.
- Harry M., (1952). A decision-theoretic approach on deciding when a sophisticated forecasting technique is needed. *Management Science* (October): B66-B69.
- Harvey Arbeláez (2004), *Capital Budgeting Decisions: A Survey of latin America Practices*, *Latin American Financial Markets: Developments in Financial Innovations (International Finance Review, Volume 5)*, pp.45-61
- Haynes W and Soloman M.B , 'A Misplaced Emphasis in capital Budgeting' Quarterly Review of economies and Business (February 1963)
- Kadondi E.A.(2002)*A Survey of Capital Budgeting Techniques used by Companies Listed at the NSE.* Unpublished MBA Project, University of Nairobi, School of Business.
- Luenberger, J. V. (1958). Management planning of capital allocations to business activities. *N.A.A. Bulletin* (September): 5-15.
- Maher, M.W., Stickney, C.P. & Weil, R.L. (1997). *Managerial accounting: An introduction to concepts, methods, and uses* (6th ed.). Orlando, FL: Harcourt Brace.

- McWatters, C.S., Morse, D.C. & Zimmerman, J.L. (2001). *Management accounting: Analysis and interpretation* (2nd ed.). New York, NY: McGraw-Hill.
- Moore J. S. and Reichert A.K.(1989) *A Multivariate Study of Firm Performance and the Use of Modern Analytical Tools and Financial Techniques*.Vol. 19, No. 3 pp. 79-87
- Morse, W.J., Davis, J.R. & Hartgraves, A.L. (1996). *Management accounting: A strategic approach*. Cincinnati, OH: Thomson.
- Moscove, S.A., Crowningshield, G.R. & Gorman, K.A. (1985). *Cost accounting with managerial applications* (5th ed.). Boston, MA: Houghton Mifflin.
- Njiru B. M. (2008) *Survey of Capital Investment Appraisal Techniques used by Commercial Parastatals based in Nairobi*, Unpublished MBA Project, University of Nairobi, School of Business.
- Olum C.D. (1976) *Capital Investment Appraisal, Technique and Publicity Finances Investment Project in the Private Sector*. Unpublished MBA Project, University of Nairobi, School of Business.
- Osoro M. (2001) *Budgetary Control in Ngos in Kenya*. A Case for World Vision Unpublished MBA Project, University of Nairobi, School of Business.
- Oyaro .G. M (2009) *A Survey of Capital Budgeting Practices for Insurance Companies in Kenya* Unpublished MBA Project, University of Nairobi, School of Business.
- Peterson, P.P. & Fabozzi, F.J. (2002). *Capital budgeting theory and practice*. New York, NY: Wiley. 104
- Petty, J. William, David F. Scott, Jr. (May 1984), *"Capital Budgeting Practices in Large American firms: A Retrospective Analysis and Synthesis," The Financial Review*, 19
- Pradeep B & L. Quesada *The use of Capital Budgeting Techniques in businesses: a perspective from the Western Cape*.
- Robinson and Hayne (1963) *Journal of Small Business Management (JSBM)*

- Ross, M, (1986), "*Capital Budgeting Practices of Twelve Large Manufacturers,*" *Financial Management* (winter 1986) vol. 15, issue 4, pp 15-22
- Ross, Stephen A, (1976). "Options and Efficiency," *The Quarterly Journal of Economics*, MIT Press, vol. 90(1), pages 75-89, February
- Seitz, N & Ellison, M.(2005). *Capital budgeting and long-term financing decisions* (4th ed.). Mason, OH: Thomson South Western.
- Shim and Siegel (1994) *Budgeting basics & beyond* Volume 5th edition
- Shim, J.K. & Siegel, J.G. (1994). *Budgeting basics & beyond: A complete step-by-step guide for non financial managers*. Englewood Cliffs, NJ: Prentice Hall.
- Stenzel, C. & Stenzel, J. (2003). *Essentials of cost management*. Hoboken, NJ: Wiley.
- Thaker, F (1998). *Current Budgets and Budgeting Practices. Journal of Applied Management Accounting*, Vol. 44, Issue 2, 137-150.
- Tobin J (1958) A Survey of the Theory of Rationing.*Econometrica*, Vol. 20, No. 4. (Oct., 1952), pp. 521-553.
- Uddin M and Chowdhury R, (2009) *Do We Need to Think More About Small Business Capital Budgeting*). *International Journal of Business Management*, Vol. 4, No. 1,

APPENDICES

APPENDIX 1: Introductory letter

APPENDIX II: Questionnaire

Kindly respond to the statement below as objectively as possible making a tick (x) mark against any appropriate alternatives which mostly apply to you. Your responses will be treated in utmost confidence. Please provide answers to the following questions:

SECTION A (PERSONAL DATA)

1. Name:.....
2. Position Held:
3. How long have you worked with this organization?
 - a) Less than 1 year ()
 - b) 1-5 years ()
 - c) 5-10 years ()
 - d) Over 10 years ()
4. What is the ownership status of your organization?
 - a) State owned ()
 - b) Public owned ()
 - c) Private owned ()
 - d) Others (specify)

SECTION B

5. Does the company have a capital Investment manual?
Yes () No ()
6. If yes, which year is the latest copy of the Investment manual?.....
7. Is the company a foreign company?
Yes () No ()
8. How many members of staffs are assigned full time to capital investment analysis?
 - a) None ()
 - b) 1-2 staffs ()
 - c) 3-5 staffs ()
 - d) More than 5 staffs ()

9. Does the company have guidelines on how requests for capital expenditure should be submitted?

Yes () No ()

10. Who produced the guidelines?

- a) Executive management ()
- b) Budget committee ()
- c) Divisional manager ()
- d) Operating personnel ()
- e) Others (specify).....

11. Who analyzes and reviews the business case requests for capital expenditure?

- a) Executive management ()
- b) Budget committee ()
- c) Divisional manager ()
- d) Operating personnel ()
- e) Others (specify).....

12. Tick below people who originate your capital budgeting proposal?

- a) Executive management ()
- b) Budget committee ()
- c) Divisional manager ()
- d) Operating personnel ()
- e) Others (specify).....

13. Please indicate how frequently your company employs the following budget techniques?

	PB	NPV	IRR	MRR	PI
a) Strongly Disagree 1	()	()	()	()	()
b) Disagree 2	()	()	()	()	()
c) Neither Agree nor Disagree 3	()	()	()	()	()
d) Agree 4	()	()	()	()	()
e) Strongly Agree 5	()	()	()	()	()

14. Please indicate which of the following criteria your company favors?

- a) PB ()
- b) NPV ()

- c) IRR ()
- d) MRR ()
- e) PI ()

15. . Has there been a time when the company changed from one budgetary technique to another?

Yes () No ()

16. Does your company use any technique to assess a project's risk?

Yes () No ()

17. If yes, please specify

- a) Scenario analysis ()
- b) Sensitivity analysis ()
- c) Decision tree ()
- d) Simulation analysis ()

18. Which approach does the company use in determining minimum acceptable rate of return to evaluate proposed capital investment analysis?

- a) WACC ()
- b) Cost of debt ()
- c) Cost of Equity ()
- d) Arbitrary chosen figure ()

19. What difficulties do your organization face in it's capital budgeting process?

- a) Estimating cash flows ()
- b) Determining discount rate ()
- c) Incorporating risk ()
- d) Adjusting for inflation ()
- e) Others (specify).....

20. Of the difficulties listed, which do you consider most challenging?.....

21. Do you consider your capital budgeting process as a strategy for achieving competitive advantage over your competitors?

Yes () No ()

Thank You for your cooperation.

APPENDIX III: SPSS do File

APPENDIX IV: Correlation and Regression