RELATIONSHIP BETWEEN CAPITAL BUDGETING TECHNIQUES AND FINANCING DECISION AMONG MAJOR SUPERMARKETS IN NAIROBI COUNTY, KENYA

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DECLARATION

This research project is my original work and it has not been presented and submitted to any in university or college for examination.

Signed…… **Date**…3/12/2021……..

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This research project has been submitted for examination with the authority and approval as the university supervisor.

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DEDICATION

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LIST OF ABBREVIATIONS/ACRONYMS

ARR - Accounting Rate of Return

CAK - Competition Authority of Kenya

D/E - Debt to Equity ratio

IRR - Internal Rate of Return

MIRR - Modified Internal Rate of Return

NPV - Net Present Value

NSE - Nairobi Securities Exchange

PBP - Pay Back Period

PI - Profitability Index

RR - Retention Ratio

ABSTRACT

There are significant connections between corporate financing and investment decisions (Jensen, 1984). The cash flow method used in capital budgeting facilitate the undertaken financing decisions. The choice of whether to accept or reject an investment is dependent on not only the profitability and viability of the project but also on the ability of the company to raise the initial capital.The research objectiveestablishedrelationship between capital budgeting techniques and financing decisions among major retail outlets in Nairobi County, Kenya. The theories that inform this study was informed by the portfolio theory and the real options theory. The research design adopted was causal research design, while the population of the study consisted of 41 major supermarkets in Nairobi County, Kenya. The study applied a census approach where the whole population was analyzed, and no sample was drawn. The study employed primary as well as secondary data collection methods where a closed ended questionnaire was identified for collecting primary data. The cross-sectional study that was deployed in the study undertook correlation as well as multiple linear regression analysis. The study findings established that capital budgeting techniques have no significant effect on the capital structure and therefore they cannot significantly predict a firm's capital structure. Further study findings were that none of the capital budgeting techniques had significant effect on capital structure. The final study finding indicated that the size of the firm had significant association with capital structure. There are various policy recommendations made to the government officials and policy formulators in the retail industry, mainly the regulator CAK and the Ministry of Trade and Industrialization, that they should not focus on capital budgeting techniques when trying to regulate the capital structure of supermarkets. However, they should encourage supermarkets to increase in size since large supermarkets are most likely to employ capital budgeting techniques, which will most likely influence their capital structure. Further recommendations were to retail market practitioners and consultants not to focus on capital budgeting techniques when deciding on the optimal capital structure. However, they should focus on the size of the retail outlets when deciding on the optimal capital structure.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

There are significant connections between corporate financing and investment decisions (Jensen, 1984). The cash flow method used in capital budgeting facilitate the undertaken financing decisions. The choice of whether to accept or reject an investment is dependent on not only the profitability and viability of the project but also on the ability of the company to raise the initial capital. A firm ought to align capital structure and capital budgeting in such a way that it has adequate cash to make the necessary investment. In ability to match financial needs with financial sources indicates liquidity and solvency problems for a business enterprise (Andrew & Albert, 2013). Most businesses are unable to invest in all projects that are profitable; rather, availability of funding dictates the investment to be taken up. Before deciding to approve a project, lenders and shareholders would consider the capital structure; their review would show that effective project implementation or failure would alter the structure of capital. In some situations, a project needs to be shelved or scaled up, before finances are matched to the cash that investors are willing to contribute (Pandey, 2013).

The study was anchored on the portfolio theory developed by Markowitz (1952).The theory stipulates that the investors as opposed to only compiling portfolio form securities that independently have attractive risk reward features concentrate on choosing portfolio based on their total risk reward features. The theory was employed in this study to explain the risk and return matrix of corporations' investments. The risks in this context can be attributed to the loss of funds of providers of capital while return can be referred to as the profitability of an investment.The other theory that underpinned this study was the real options theory proposed

by Myers (1977). The theory suggests that rights are obtained by a firm once an investment has been undertaken, the right may also be in form of right to acquire or dispose either a physical asset or other plans comprising of investments in future. An investment proposal that is difficult to evaluate, then the value should be undertaken such that the proposal is proportional to the NPV of the project as well as value of the future option. Thus, the framework of the theory is an effective tool for determining and evaluating investment projects.

The various evaluations concentrated in the assessment of firms listed at the NSE indicated that firms are consistent in their use of capital budgeting criteria of assessing investments. There is existing evidence that firms listed at the NSE use detailed capital budgeting techniques before undertaking investments as a way of appraisal of the relevant investment opportunities (Wokabi, 2014). However, the practice has not translated into enhanced financial performance for these firms (Munyao, 2010). However, some studies indicated that there was positive effect of capital budgeting techniques on return on investments as stipulated by Wokabi (2014). There has been no empirical study, which relates the relationship between capital budgeting techniques and financing decision in the Kenyan context. Additionally, no study has endeavoured to examine the capital budgeting techniques in the Kenyan retail sector. The current study endeavoured to fill this gap by establishing the association amongst capital budgeting techniques and financing decision of major supermarkets in Kenya.

1.1.1 Capital Budgeting Techniques

Capital budgeting is way of assessing the viability of long-term investments so as to allocate financial resources to make investments that are profitable (O'Sullivan &Sheffrin, 2003). The techniques of appraisal adopted in capital budgeting mostly look on to the investments cost

compares to the benefits derived in the economic life of the investment. During the process of capital budgeting, a company's management establishes the cash outlays and cash inflows related with an investment (Seitz &Ellison, 1999).

The definition of capital budgeting has also been associated with cost – benefit analysis of investments in long term assets. In this process the cash flows, risks, and returns of acquisition of a new capital assets or enhancement of the existing ones are examined and compared. Capital budgeting enables appraising and selecting the most suitable investments and set out the ultimate decision criterion for approving or rejecting an investment proposal. The benefits for undertaking capital budgeting have also been highlighted through the works of Mooi and Mustapha (2001)and specified that it results in better decision making in relation to use of capital expenditure in firms.

There are several capital budgeting methods, which are categorized as either discounted or non-discounted capital budgeting techniques. Time value of money is an important concept as far as discounting is concerned, as future cash flows are subject to interest and inflation factors (Brigham &Ehrhardt, 2002). Discounted cash flows methods include; Profitability Index (PI), NPV, discounted payback period, Modified Internal Rate of Return (MIRR) and Internal Rate of Return (IRR). NPV involves forecasting future cash flowsand discounting these cash flows using a required rate of return so as to compare the present value of cashflows and then comparing it with the actual cost. IRR involves establishing the discount rate at zero NPV, when total PV for future cashflows equals initial cost. The ratio defined by PV of future cashflows over initial cost. MIRR is an nth (project life) root of the ratio entailing the present value of future netcashflows which have been duly reinvested at a rate of cost of capital while the initial outlay is financed at firm's financing cost subtracted by 1

(Pike and Neale, 1999). However, payback period capital budgeting technique as well as accounting rate of return (ARR) are non-discounted cashflow techniques. In the PBP method measures the viability of a project through comparing the inflows and outflow overtime so as to determine the time the project takes to payback. ARR determine the viability of the project by use of the accounting profits from the financial reports through comparing the average income after tax with the average investment costs (Munyao, 2010).

1.1.2 Financing Decisions

Financing decisions entails the availability of finances to fulfil the budget obligation of an organization (Andrew & Albert, 2013). Financing decisions are decisions undertaken by firm concerning borrowing and allocating finances needed for investment decisions. This includes a company raising funds from its own sources such as retained earnings and share capital or external sources like bond, loan and debentures from financial institutions. The financing decisions are affect by the cost of various finance sources like equity capital and debt. This is referred to as the capital structure; how a business is financing its operations (Frank &Goyal, 2009).

Dividend policy and capital structure are some financing decisions that are regarded as significant factors in the ability of an organization to be competitive in the current environment (Welch, 2004). Miller and Modigliani (1958) pioneered the capital structure irrelevance theory; this theory contended that capital structure was irrelevant as far as the value of the firm is concerned. However, their theory was founded on various assumptions that do not hold in the real world. Miller and Modigliani (1963) set to relax some assumptions from their earlier hypothesis. The study expounded that the firm value is not

affected by capital structure though there is a differential due to the interest expense on the debt. The study additionally outlined that interest payments are tax deductible as a result of income tax laws existing in various countries, so that companies domiciled in those countries reduce their tax liability and increase post-tax cash flows. On the contrast, dividend payments are not tax deductible; companies ought to pay tax on all their income, rendering equity an expensive financing source.

Normally, the extent of borrowing denoted as the Debt to Equity ratio (D/E) ratio, financial leverage and operating leverage are used in measuring financing decisions. The D/E ratio is obtained through dividing total liabilities with total shareholders' equity. Operating leverage measures the degree to which a project or a firm is able to raise operating income through raising revenue. It is the ratio of the contribution margin to net income. Financial leverage entails using debt to finance purchase of new assets. It is obtained as the ratio of percentage change in Earnings Per Share (EPS) to percentage change in Earnings Before Interest and Tax (EBIT) (Grinblatt and Titman, 2002). The Debt to Equity (D/E) ratio was employed in this study as a measure of financing decisions.

1.1.3 Capital Budgeting and Financing Decisions

A study done by Graham and Harvey (2002) established that large firms in comparison to small firms are to a large extent likely to adopt NPV. However, the study additionally established that highly leveraged firms irrespective of the size is mostly likely going to use IRR and NPV in comparison with firms that have low debt ratios. This finding are in line with Jensen (1984) findings that indicate that there is a discipline on corporate investment decisions that comes with debt financing and it is usually not there in firms that are underleveraged and with significant free cash flows. Graham and Harvey (2002) further

stipulated that firms that are highly leveraged firms which pay dividends tends to have high leverage ratio and in addition are more likely to adopt IRR and NPV in comparison with those that do not pay dividends irrespective of their size. The study additionally stipulated that lower utilization of NPV by firms that do not pay dividends may indicate the idea that these firms are on high growth and their investments are difficult to measure using NPV: partly due to the fact the anticipated cash flow from the investment are not always anticipated to occur for years. Simulation and sensitivity analysis are popularly use by firms that are highly leveraged partly to evaluate and restrict risk of financial distress to acceptable levels. Finally, the study stated that relative to private companies, public companies were more likely to adopt IRR and NPV capital budgeting technique.

Solomon (1995) expounded on a concurrent decision on the magnitude and form of capital expenditures to be incurred together with a decision on which kind of financing to adopt to fund the capital expenditures requirements. Therefore, there is no difference of capital investment decision with investment decision. The study further stated that a capital budgeting decision is exchange of funds to acquire a tangible asset and as the goal of a firm is maximization of shareholder wealth, the exchange ought to be profitable. In order for the exchange to be profitable, the return on assets of the acquired asset ought to be more than the financing cost for the assets acquisition. Thus, there is no way profitability can be known without knowing the financing cost of assets acquisition; since profitability relies on the value added or removed from the firm that as a result is a function of the cost of funds utilized in the project.

On the other hand, Miller and Modigiliani (1966) stated higher cost of capital is associated with capital budgeting projects that have riskier returns. Thus, the minimum cost of capital irrespective of any financial risk premium is generally dependent on business risk. This means that the debt-financing amount of a suitable project depends on the business risk of the project and the comparative costs equity and debt financing viewed as financial risks and business functions respectively.

The non-discounting capital budgeting techniques do not influence the financing decisions. Clearly there is no relation of cost of capital and the choice of either accepting or rejecting the project proposal in PBP method since it is merely based on a certain determined cut off period. The ARR approach does not take into consideration the capital opportunity cost that offsets opportunity costs and the time value of money, as it uses only the accounting profits and calculates the ARR generated by the proposed project. Even though these approaches considers the financing cost before arriving to the net income or the cash flow required to calculate them, they do not factor in premium for project that are riskier and the risk and return features of the capital investment opportunities. Therefore, the capital structure of the firms is ignored in this approach (Luehrman, 1997).The discounting capital budgeting techniques including the NPV, IRR, PI, amongst other, take into account the minimum acceptable threshold amount, which is the firm's cost of capital.Thus, these techniques implicitly involve taking into account cost of capital since there is not project that can be accepted without meeting the minimum accepted cost of capital (Stewart, 1999).

1.1.4 Supermarkets in Nairobi County, Kenya

A supermarket is a type of grocery self-service joint that deals extensive variation of household commodities and food preset into branches. It trades small capacities of

servicesand goods to customers for their business andpersonal usage (Mithamo, Marwa,&Letting, 2015). In Kenya, the definition of a supermarket isa large scale retailing organization with more than a few divisions below one roof andoffering self-service option, like foodstuffs, cosmetics,and crockery, pharmaceutical. The Kenyan supermarket sector is made up of various categories of local chains: grocery, electronics, and most of Kenya's supermarkets are based in Nairobi (Mutisya, 2015). In Kenya, Westlands General Store (1960) was the first supermarket followed by Abrahams Self Service Store (1970) and Uchumi Supermarket (1975) was the third, all of which were in Nairobi before they expanded to other locations in Kenya (Mithamo, Marwa, & Letting, 2015). In Nairobi, there areabout 26 supermarkets operation as indicated by Nairobi City Council Department of Licensing (2016). A few of the supermarkets run as chains (Ukwala, Uchumi, NaivasNakumatt and Tuskys) and are directly connected to producers, suppliers and distributors. As at 2014, Nakumatt operated 16 branches, Uchumi supermarket had13,Naivas had 14, whileTuskys had 23 branches in Nairobi County. Other supermarkets in Nairobi County include;Ukwala, Eastmatt, Chandarana, Rikana, Cleanshelf, and others not in any order of size (Mutisya, 2015).

According to a State Department for Trade (2017) report on the Kenyan retail sector, the Kenyan retail sector, there is an amount of Kshs40billion entailing short and long term financing instruments. Some retailers have a financing arrangement with banks where manufacturers or suppliers are listed to ensure that they will be paid in compliance with the terms of the agreement. Mauritius-based private equity firm Adenia Partners acquired a majority stake in Tumaini in December 2018 and subsequently acquired Quickmart. In the year 2020, Naivas Supermarket obtained a Kshs 1 billion capital injection form the Dutch

investment company, DEG for a 30% stake in order to ease Naivas debt levels. In the same year, the Kenyan operations of the multinationals Carrefour had been indebted to the tune of Ksh 3 billion as a loan from Standard Bank Group in South Africa as a source of financing business expansion in the retail chains in Kenya. The retail chain, Tuskys Supermarket, was also in the verge of signing a Kshs2 billion offer from investors in Mauritius to enable the retail outlet boost its wobbling financial position(State Department of Trade, 2020).

1.2 Research Problem

The cash flow method used in capital budgeting facilitate the undertaken financing decisions. The choice of whether to accept or reject an investment is dependent on not only the profitability and viability of the project but also on the ability of the company to raise the initial capital. A firm ought to align capital structure and capital budgeting in such a way that it has adequate cash to make the necessary investment. In ability to match financial need with financial sources indicates liquidity and solvency problems for a business enterprise (Andrew & Albert, 2013).

Some supermarkets in Kenya have been experiencing poor performance (Kimotho, 2017). Uchumi Supermarket has survived multiple liquidation attempts, but has still not been able to get back on track and post good financial performance despite various turnaround efforts and being bailed out by the government multiple times. In 2016, Nakumatt Supermarket collapsed with a Kshs38 billion debt(Joyce et al., 2017; Kariuki, 2018). Tuskys Supermarket has been experiencing liquidity issues and imminent insolvency, andunconfirmed rumours indicate that it is in the verge of signing a Kshs 2 billion loan (State Department of Trade, 2020).Upon reviewing the debt portfolios of 25 major retailers in June 2020, the Competition Authority of

Kenya (CAK) announced that four of them were in debt distress, although three were working to get back on course. The three of the four retailers proposed payment plans and lowered their debt portfolio continually in order to settle the amounts outstanding (Njoroge, 2020).Aggressive expansion to increase presence seems to be the major factor leading to the collapse of the supermarkets according to Some(2017). The study seeks to establish if the supermarkets are aligning capital structure and capital budgeting to make sure that theyhaveadequate cash to accept the investments of aggressive expansion. Inability of matchingthe investments to financing may cause liquidity and solvency problems for the supermarkets.

In the global arena, Graham and Harvey (2002) sought to investigatecapital budgeting and financing conditions and established that the financing decisions influenced the capital budgeting techniques conducted with the firm size moderating the relationship. The study expounded on a concurrent decision on the magnitude and form of capital expenditures to be incurred together with a decision on which kind of financing to adopt to fund the capital expenditures requirements and established that capital budgeting and financing decisions have a common simultaneous effect on each other. On the other hand, Miller and Modigiliani (1966) on a study to establish whether cost of capital had significant influence on electric utility industry andstated that there is higher cost of capital associated with capital budgeting projects that have riskier returns. On the local scene, Olum (1976) investigated the application of capital budgeting in local firms, where the study findings insinuated that their capital budgeting practices were extensively used by both public and private corporations in Kenya. A study by Kadondi (2002) sought to define the frequently used capital budgeting techniques among listed firms at NSE, where the findings indicated that higher percentage of

listed firms used discount capital budgeting techniques of IRR and NPV.Munyao (2010)investigated association amongst capital budgeting approaches as well as FP (financial performance) for quoted firms at the NSE. The study findings showcased that PBP, NPV, IRR as well as ARR were commonly used techniques for firms quoted at the NSE. The findings further insisted that the technique chosen was vital in influencing FP.

The study by Graham and Harvey (2002) stated that financing decisions influence the capital budgeting techniques conducted. Solomon (1995) established that capital budgeting and financing decisions have a common simultaneous effect on each other.Miller and Modigiliani (1966) however established that the capital budgeting techniques employed influence the financing decisions employed. These studies have conflicting assertions on the status of the relationship between capital budgeting techniques and financing decisions. This presents a conceptual gap, which this study intends to fill. The local studies reviewed focused on establishing the capital budgeting techniques used (Olum, 1976; Kadondi, 2002; Munyao, 2010) and also the relationship with FP. The studies did not consider effect of capital budgeting techniques on financing decisionsthus presenting a contextual gap. It therefore brings out the need to undertake the current study and therefore seek the extent to which capital budgeting techniques affect their financing decisions. Thus, this study aimed to address the question on effect of capital budgeting techniques and financing decisions among major supermarkets in Nairobi County, Kenya?

1.3 Research Objective

The objective of this researchis to establish relationship between capital budgeting techniques and financing decisions among major supermarkets in Nairobi County, Kenya.

1.4Value of the Study

The right application of capital budgeting technique will result in better decision on the kind of investment to be adopted which will also include aligning of the capital structure and capital budgeting in such a way that it has adequate cash to make the necessary investment. In ability to match financial need with financial sources indicates liquidity and solvency problems for a business enterprise (Andrew & Albert, 2013). Thus, this study is essential to the retail industry stakeholders, who among them consist investors as well as consultants. The study is also useful to researchers, scholars as well as academician as it provides a platform for enriching the literature review and elucidating on the research gap as far as capital budgeting techniques and financing decisions. Since the study will be one of the few done on relating capital budgeting techniques and financing decisions in the retail sector, it will thus be of massive advantage, given its inclusion in empirical study and academic knowledge for future research and teaching methods purposes. More sure future studies will be benchmarked in this study as it will be source of literature and secondary materials. The findings also add to knowledge specifically in regard to financing decisions and capital budgeting techniques. Later scholars will use the study findings as referral.

The government as represented by the regulator, CAK, and the relevant policy formulators would find that the study indicate the noble practices that would alleviate the collapse of players in the retail industry. Knowledge on the capital budgeting techniques adopted and their effect on financing decisions by the various supermarkets will be on immense significance to CAK in formulating policies touching on the operation of the players in the retail sector. More so it will assist in understating the decision on technique of financing in

other sectors. CAK would have a more elaborate view of capital budgeting techniques in retail outlets and therefore devise appropriate framework to both protect and enhance the operations in the retail sector.

The study is important to the retail sector shareholders, potential investors, consultants, and the supermarkets' administration. The findings of theresearchwill help the supermarkets' administration evaluate applicable appraisal techniques and the manner in which they would be well designed to help in the achievement ofan optimal capital mix, which will lower the firms' cost of capital while subsequently increasing their value. The shareholders will acknowledge how their individual firms use the resources they are given to achieve a return that is paid as dividend. The findings of the study will also enable potential investors to understand capital budgeting approaches and factors that are considered when choosing and investment to undertake. Consultants may use the study findings to advice firms on the capital budgeting techniques to utilize and how to obtain an optimal capital mix.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The focus of the chapter is to create insights on the theories of capital budgeting techniques, to help in the comprehension of its concepts, structures, and the empirical literature on how it influences the financing decisions of retail firms. The significance of this chapter is to establish the probable knowledge gaps in the studies undertaken previously by scholars on the impact of capital budgeting techniques on the firm financing decisions.Specifically, this chapter covers a theoretical review, definition and literature on the capital budgeting techniques, empirical literature on the relationship between capital budgeting techniques and financing decisions, a conceptual framework, and a summary of the literature review and gaps.

2.2 Theoretical Foundation

The literature review explores the work conducted by other scholars concerning the impact of capital budgeting techniques on financing decisions. The section encompasses the detailed knowledge of related concepts and provides a platform on which the findings will be built upon and also overcome the limitations of the study. Theories are essential in the various sections as they establish the phenomena and principles that relate to the topic. The theoretical framework depicts the interrelationship between different ideologies and provides the guidelines for the project or business endeavour (Lyon, 1977). The study will focus on the portfolio theory and the real options theory.

2.2.1 Portfolio Theory

This portfolio theory was proposed by Markowitz (1952). This theory outlining the diversification computation opined the investors as opposed to only compiling portfolio form securities that independently have attractive risk reward features concentrate on choosing portfolio based on their total risk reward features. Simply put, investors need not select individual securities but rather select portfolios.If one-period returns are viewed as random variables for different securities, expected values, standard deviations and correlations can be allocated.On this basis, every portfolio will rely on its expected return and volatility of these securities. Risk and reward are represented by the volatility and expected returns respectively. From all the possible portfolio there will be some that will bring forth the optimum balance of risk and reward. These includes what Markowitz (1952) referred to as an efficient frontier of portfolios. An investor ought to choose a portfolio which in the efficient frontier.

Before the Markowitz's theory, investors evaluated the risk and reward of individual securities to form their portfolios.The basic investment advice was to identify those securities that best presented the lowest risk return and create a portfolio from them. Using this advice and investor would assume that railroad stock had a good risk reward feature and form a portfolio based on them (Mangram, 2013). Markowitz (1952) formalized this intuition.Tobin (1958) broadened the work of Markowitz through incorporating the risk free asset to the analysis. With this it was possible to leverage and deleverage portfolios on the efficient frontiers.The conceptions of a super-efficient portfolio and the capital market line are thus developed.By leveraging, portfolio on the efficient frontier is outperformed by those in the capital market line.

The theory links to the study because itoffers a wider concept to conceptualizing the relationship of systematic risk and reward. This has greatly shaped the management of portfolio in organizations and has promoted use of passive techniques of investment management. The portfolio theory is commonly applied in financial risk management and was a theoretical precedent of modern risk based measures (Mangram, 2013). In this study, return is ascertained by capital budgeting techniques while risk is denoted by financial risk occasioned by financing decisions.

2.2.2 Real Options Theory

Remarkable progress has been made in the pricing theory of options and the financial option market after the pricing problem of the financial option was addressed in the importantBlack ScholesModel. Arising as a result of the challenges of the conventional NPV method while undertaking investment appraisals.Myers (1977) developed the theory of real option and established that option pricing theory might be applied to make decision on investment in real property project. Real option which is similar to financial option is defined as the right to investment undertaken under uncertainty conditions. The theory of a real option does not rely on the projection of the single cash flow, but the volatility of the project and defines the distribution of future cash flows in terms of probability, in contrast to the conventional investment decision process.Real option theory, then, is also an expansion of the financial option theory that applies to investment in real property and enhances financial market investment strategy into the firm's strategy therefore obtaining a valuable tool in improving strategy thinking is concerned (Gilbert, 2004).

The real options method appreciates the idea of uncertainty. Investments carry with them uncertainty in future cash flows and management ought to have effective tools that would ensure that the uncertainty is addressed effectively (Gilbert, 2004). The uncertainty in future cash flows is therefore analysed well using existing discounted cash flow-based techniques. Real options method might be considered beneficial in making decision on closing down or other kinds of disinvesting. More so, these activities are also part of investment (Dixit &Pindyck, 1995). Operation that lose money also have cost and evaluating them using real options method can be fruitful. Instead of just concentrating on costs, the identification of trade-offs and alternate costs could serve as the way for a greater understanding of the financial implications of shutdowns (Gilbert, 2004). There also shortcoming that comes with real options methods such as it requires a lot of computation and more data as well as being complex. Additionally, it is challenging to communicates the finding of real options methods in real life situation merely due to lack of skills in options theory (Akalu, 2003).

The theory links to the study because it purposes conduct the investment decision in a corporate setting. The current study is utilizing capital budgeting techniques as criteria for allocating scarce firm resources to competing projects. The real options theory appreciates the idea of uncertainty. There ought to be uncertainty pertaining future cash flows arising from the investment, and management ought to have flexibility of assessing this uncertainty as it arises (Gilbert, 2004). In the current study, the discounted capital budgeting techniques incorporate the aspect of uncertainty.

2.3 Capital Budgeting Techniques

This section will elaborate on the capital budgeting techniques. They are categorized as either discounted or non-discounted capital budgeting techniques. Discounted cash flows methods

include; NPV, IRR, Profitability Index (PI), MIRR. The non-discounted cash flow techniques include the PBP and the ARR. Firm size will be utilized as the control variable.

2.3.1 Payback Period

This is an investment appraisal technique that details the time taken for a project to repay its initial costs. It is measured as the numbers of years that it takes to recover the initial investment of the proposed project (Crosson, Powers & Needles, 2010). The PBP is among the first, famous and widely used technique of evaluating capital projects by most firms.The objective of the method is to determine the time taken for cash flows to cover initial outlays cost and the investment in asset to pay back to the initial amount invested. The project that has the short payback period is regarded as the superior project (Horngreen& Harrison, 2008).It therefore entails the time taken to recover initial cost outlay using incremental cash flows.The core principle behind the argument is that investments undertaken by a company should take the least time possible to recoup the initial investment undertaken in an investment (Crosson, Powers & Needles, 2010). The decision criteria used in PBP approach is the investments that have shorter payback period are preferred (Arnold, 2008).

This approach might be applied in comparing the standard pay back developed by management with actual pay back relating to the maximum period that the initial investment ought to be recouped (Horngreen& Harrison, 2008. The management determines the standard pay back subjectively based on various factors for instance project risk, type of project amongst other factors. PBP can also be applied in prioritizing projects that are mutually exclusive. The project might be ranked depending on the PBP period with the project having least PBP being chosen (Graham & Harvey, 2010).PBP is particularly utilized in the

evaluation of highly uncertain investments. Uncertain investments are more likely to employ equity rather than debt financing (Graham& Harvey, 2002).

2.3.2 Accounting Rate of Return

An investment rate of return is referred to as the accounting average net income from an investment divided by the total cost of an investment or by average cost of the investment (McLaney, 2009). The investment average cost is obtained by averaging the investment at the beginning and the salvage value at the end of an investment. In comparison to the payback period, this approach is more defensive since it tries to compute the accounting rate of return as opposed to calculating the time needed to recoup initial investment (Horngreen& Harrison, 2008).

The method also incorporates the proceeds even after payback period and enables the prioritizing of alternate capital investments as per their comparative returns. This approach however has drawbacks because time value and the likelihood of reinvestment are not taken into account. In addition, it might be disadvantageous since it is computed differently, based on average investment or total investment (Horngreen& Harrison, 2008). The ARR does not incorporate risk, thus it does not consider the cost of capital. Hence, it is indifferent to the utilization of any financing decision (Graham& Harvey, 2002).

2.3.3 Net Present Value

NPV involves forecasting future cash flows and discounting them through use of a required annual rate or a discounting factor to arrive at present value estimate and then comparing it with the actual cost. The discounting rate partly relies upon the project risk which is the

possibility of changes in the project cash inflows (Khamees, et al., 2010). A project is considered for further evaluation if it has a positive NPV. On the contrast it is rejected if it shows a negative NPV. The project that has the highest positive NPV ought to be chosen (Horngreen& Harrison, 2008). As a result, the investment NPV is an estimation of the market price of the flow of the NPV of the projects, the capital budgeting decision that the organization is presented with is to choose a portfolio of projects which does not surpass a given budget, though at the same time generates a maximum value (Fernandez, and Campo, 2011). The shareholders' wealth would be maximized when the NPV is positive and vice versa (Johnson & Scholes, 2008).

According to Graham and Harvey (2002) highly leveraged firms irrespective of the size are most likely going to use NPV in comparison with firms that have low debt ratios. This finding are in line with Jensen (1984) findings that indicate that there is a discipline on corporate investment decisions that comes with debt financing and it is usually not there in firms that are underleveraged and with significant free cash flows.The pressure to make periodic interest and principal payments enhances the commitment of management to only invest in projects that have positive NPV. Highly leveraged firms which pay dividends tends to have high leverage ratio and in addition are more likely to adopt IRR and NPV in comparison with those that do not pay dividends irrespective of their size (Graham & Harvey, 2002).

2.3.4 Internal Rate of Return

Commonly, the IRR entails grouping potential projects according to their anticipated percent rate of return and then using some defined policy on capital expenditure strategy categorized

the grouping into the projects that are acceptable and those that are not acceptable. In order to determine a project rate of return, it entails obtaining the discount rate that are exactly equal to the present value of expected cash inflows in the project life with the initial investment need to generate inflows. In this approach, cash inflows are used as opposed to net earnings (Fernandez & Campo, 2011).

The IRR approach is considered to be among the most advanced as well as efficient approached of evaluating a capital project. In contrast to the NPV approach that uses and external rate, in the IRR approach uses the internal rate to the project (Khamees, Al-Fayoumi& Al-Thuneibat, 2010). This internal rate is what makes the NPV of a project equal to zero. Differently put, the internal rate is what makes the present value of cash inflows equal to the initial cost of the project. The criteria for accepting or rejecting a project in IRR approach is that when the internal rate of a project if more that the cost of capital then the project is accepted and rejected if the cost of capital is greater that the internal rate of a project. To project are ranked with the one having highest IRR being ranked at the top (Khamees, Al-Fayoumi& Al-Thuneibat, 2010).

According to Graham and Harvey (2002) highly leveraged firms irrespective of the size are most likely going to use NPV and IRR in comparison with firms that have low debt ratios. This finding are in line with Jensen (1984) findings that indicate that there is a discipline on corporate investment decisions that comes with debt financing and it is usually not there in firms that are underleveraged and with significant free cash flows. The pressure to make periodic interest and principal payments enhances the commitment of management to only invest in projectswho IRR is greater than the cost of capital. Highly leveraged firms which

pay dividends tends to have high leverage ratio and in addition are more likely to adopt IRR and NPV in comparison with those that do not pay dividends irrespective of their size (Graham & Harvey, 2002).

2.3.5 Profitability Index

Another approach used by organizations in making capital budgeting decisions is Profitability Index (PI). It is identical to the approach used to calculate the present value of the cash flows produced by the project (Droms& Wright, 2010). PI may also be expressed as the ratio of the project benefits or cash inflows estimated in the present value to the costs incurred when undertaking the project, also measured in terms of the present value (Crosson& Needles, 2010). Since PI is NPV expressed in ratio form, its effect on financing decision made is the same as that of NPV.

2.3.6 Modified Internal Rate of Return

MIRR is almost similar to IRR as it brings out the aspect of IRR coupled with NPV that is factored using the final payment (Droms& Wright, 2010). The MIRR is generally less than the IRR and provides a more reasonable assumption regarding the RR. The greatest drawback with IRR is that the rate of reinvestment of interim cash flows is much like the IRR itself (Crosson& Needles, 2010). However, it might not be possible for a firm to have the same IRR as before in the real word. Every new project IRR would definitely differ thus manager ought to devise a mechanism to include the change as opposed to assuming the Reinvestment Rate (RR) is the same as the IRR (Khamees, Al-Fayoumi& Al-Thuneibat, 2010).

The MIRR offers and ability to modify the RR as needed (Liljeblom&Vaihekoski, 2011). It might be difficult for managers performing the appraisal to predict the RRs down the investment horizon and therefore it is best to establish it equivalent to the cost of Capital below which additional projects would lead to "Value Destruction" (Khamees, Al-Fayoumi& Al-Thuneibat, 2010). MIRR integrates the RR from the IRR thus offers the manager the choice of picking a different / more reasonable rate, normally cost of capital, hence offering a more accurate conclusion (Liljeblom&Vaihekoski, 2011). Since MIRR is similar to IRR, its effect on financing decision made is the same as that of IRR.

2.3.7 Firm Size

The size of the firm has been determined in most of the cases usingsales, total assets and market value of equity. These measures are the most used firm size in corporate finance empirical studies (Guest, 2008). Large firms have the ability of enjoying economies of scale in issuance of long-term debt as well as in bargaining power over creditors. Therefore, there is a negative association of firm size with the cost of issuance of debt and equity (Wahome, Memba&Muturi,2015). Large firms are most likely going to adopt NPV approach whereas small firms are more inclined to using payback criteria. PBP is particularly utilized in assessing projects that are highly uncertain. In comparison of large companies small firm projects are more unpredictable, thus they are more likely to employ equity rather than debt financing (Graham& Harvey, 2002).

2.4 Empirical Literature Review

In the global front, Grahams and Harvey (2002) in the quest to define consistent characteristics which pointed to theory as well as practice which was consistent with capital

budgeting decisions. The study was conducted by utilizing primary data in form of questionnaires. The study also utilized descriptive statistics as the study main method of analysis. The study established that Chief Financial Officers (CFOs) are very critical in enhancing the quality of decisions as well as corporate governance practices of the enterprise rather than undertaking a role of provision of information. Additionally, investments evaluation technique was equally associated to the size of the firm, capital structure, as well as executive traits. The study was not conducted in the Kenyan context, thus presenting a contextual gap. Additionally, descriptive statistics was utilized in the study; this presents a methodological gap as the current study will utilize inferential statistics, which will entail correlation and multiple linear regression analysis.

Arbel'aez (2004) did a study of practices of capital budgeting in Latin American firms. The study was conducted by utilizing primary data in form of questionnaires. The study also utilized descriptive statistics as the study main method of analysis. The study established that capital budgeting practices have been widely used and applied in making capital budgeting appraisal decision in firms in Latin American. These studies on corporate leaders offer insights on the techniques used in companies for the assessment of investment projects and the decision on capital budgeting, take into account the required changes and evaluate the overall relationship of capital budgeting factors. The study did not relate the capital budgeting techniques with the capital structure decisions, thus presenting a conceptual gap. The study was not conducted in the Kenyan context, thus presenting a contextual gap. Additionally, descriptive statistics was utilized in the study, this presents a methodological gap as the current study will utilize inferential statistics, which will entail correlation and multiple linear regression analysis.

Ross (1986) conducted a study on capital budgeting practices of twelve large manufacturers. The study was conducted by utilizing primary data in form of questionnaires. The study also utilized descriptive statistics as the study main method of analysis. The study established that only few firms follow textbook methods of financial analysis and allocating capital, whereas a majority of firms uses methods that greatly condemn undertaking of smaller projects. The practice at the firms is aimed on strictly rationing capital increasingly as the firms move from CEO and Board to the position of decision-making rises. Additional findings are that the financial analysis of smaller projects in these firms is overly simplistic and it is estimated that projects deferred or ignored in these firms have a large NPV. The study did not relate the capital budgeting techniques with the capital structure decisions, thus presenting a conceptual gap. The study was not conducted in the Kenyan context, thus presenting a contextual gap. Additionally, descriptive statistics was utilized in the study, this presents a methodological gap as the current study will utilize inferential statistics, which will entail correlation and multiple linear regression analysis.

In the regional scene, Pradeep and Quesada (2008) studied the application of capital budgeting approach in business located in the western cape province of South Africa. The study performed some investigations on a various variables and connection of practices of capital budgeting. The study adapted a descriptive approach to the research findings. Analysis of the data collected was carried out using chi square test techniques use, which were used to measure the association amongst the variables. The results of the study found that the payback period, preceded by NPV, continues as being the most commonly used method across various sizes and business sectors. In addition, the findings revealed that large firm

usually prefer using NPV and IRR method in comparison to small firms. Finally, the results of the study showed that most organizations adopted bank loan costs as a criterion for capital budgeting whereas most used non-quantitative methods to recognize risk when making decisions on investment in fixed assets. The study did not relate the capital budgeting techniques with the capital structure decisions, thus presenting a conceptual gap. The study was not conducted in the Kenyan context, thus presenting a contextual gap. Additionally, descriptive statistics, this presents a methodological gap as the current study will utilize inferential statistics, which will entail correlation and multiple linear regression analysis.

In the local scene, Ochieng (2010) conducted astudyonboard of directors' role in capital budgeting process of firms listed at the NSE. Questionnaires were the instruments that were adopted in gathering of primary data. Data was captured and analyzed utilizing both correlation and multiple regression analytical tools. Findings of the study stipulated that listed firms had special board committees with clear objectives of undertaking investment goals of the firm. The selection of a project as well as financial analysis were the most critical steps in defining capital investment. The study also stipulated that despite the fact that non-financial investments such as employees' safety are rarely recognized as investment decisions, they were critical elements to enhance the company's products. The preference in regard to appraisal technique among these firms included use of NPV, discounted payback method, while fewer preferred IRR and PI. The Return on Investment (ROI) was also one of the crucial capital budgeting methods adopted by these companies. The study did not relate the capital budgeting techniques with the capital structure decisions, thus presenting a conceptual gap.

Kadondi (2002) performed an investigation on techniques of capital expenditure adopted by firms listed at NSE.Questionnaires were the instruments that were adopted in gathering of primary data. Data was captured and analyzed utilizing inferential statistics, which entailed correlation and multiple linear regression analysis. The study findings revealed that; most companies are concerned about incorporating risk in their capital budgeting process,majority of the firms applies non-discounted cash flow method to assess investment projects,companies use cost of specific source of funds and management determined target rates of return to determine project discount rate,and companies consider strategic aspects of capital budgeting and do engage in post auditing of completed projects. The study additionally established that no relationship was established between firm, CEO and project characteristics and capital budgeting techniques. The study did not relate the capital budgeting techniques with the capital structure decisions, thus presenting a conceptual gap.

Njiru (2008) undertook an examination and focussed on capital investment appraisal from the perspective of maximization of shareholders' wealth and aimed on establishing the generally adopted techniques of appraising capital investment by commercial parastatals as well as establish which factors affect the selection of a technique to be used. Questionnaires were the instruments that were adopted in gathering of primary data. Data was captured and analyzed utilizing inferential statistics, which entailed correlation and multiple linear regression analysis. The study findings exhibited that factors that affected the selection of a technique included, firm size, initial investment needed, government policies and industry practices. The study did not relate the capital budgeting techniques with the capital structure decisions, thus presenting a conceptual gap.

Oyaro (2009) examined the techniques of capital budgeting adopted by insurance companies in Kenya. The study was conducted by utilizing primary data in form of questionnaires. The study also utilized descriptive statistics as the study main method of analysis. The study findings displayed that discounted cash flow methods were preferred to the simpler methods like ARR and payback. The study did not relate the capital budgeting techniques with the capital structure decisions, thus presenting a conceptual gap. Additionally, descriptive statistics were utilized in the study, this presents a methodological gap as the current study will utilize inferential statistics, which will entail correlation and multiple linear regression analysis.

2.5 Conceptual Framework

The diagrammatic outlay of the relationship of study variables depicts a conceptual framework according to Young (2009).This study adopted financing decisions the dependent variable is financing decisions. The independent variables are the discounted and non-discounted cash flows methods that entail;NPV, IRR, PI, MIRR and ARR. Firm size is the control variable. Figure 2.1 below exhibit the conceptual framework.

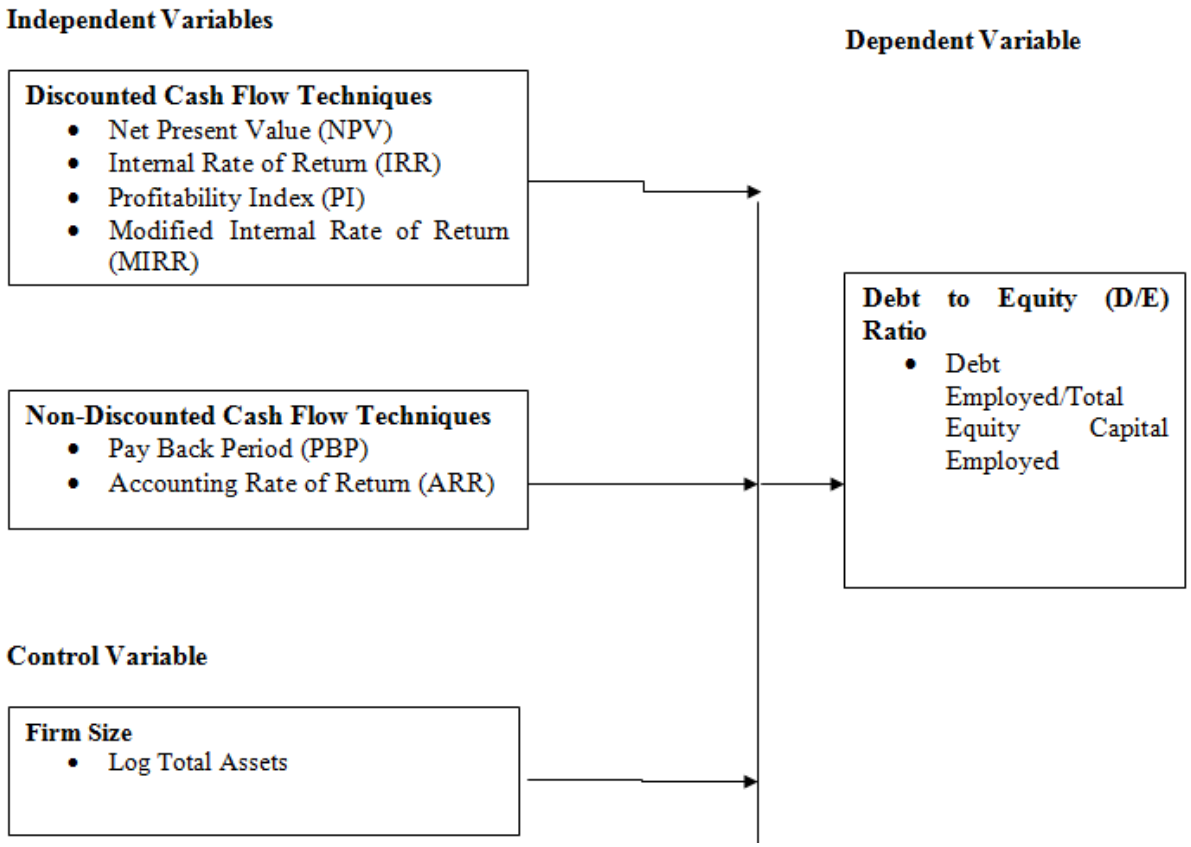

Figure 2.1: Conceptual Model

2.6 Summary of Literature Review and Research Gaps

PBP is particularly utilized in the evaluation of highly uncertain investments. Uncertain investments are more likely to employ equity rather than debt financing (Graham& Harvey, 2002). The accounting rate of return does not incorporate risk, thus it does not consider the cost of capital. Hence, it is indifferent to the utilization of any financing decision (Graham& Harvey, 2002). According to Graham and Harvey(2002), highly leveraged firms irrespective of the size are most likely going to use NPV in comparison with firms that have low debt ratios.

Most of the studies reviewed did not relate the capital budgeting techniques with the capital structure decisions. The conceptual, contextual as well as methodological gaps have well

been detailed in each study and therefore earmarking the study as a key study to bring out new knowledge in regard to capital budgeting and capital structure. The methodological gap have been identified where the methodology adopted in the study seeks to ensure that the relationship has been well captured and the research objectives have been equally addressed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

To ascertain the relationship between capital budgeting techniques and financing decisions among major supermarkets in Nairobi County, Kenya, the study identified a methodology that identified the process that would be incorporated in achieving the objectives of the study.

3.2 Research Design

Causal research design was deployed in the study as it is convenient design to define cause and effect relationship between the study variables. The design was therefore suited for this study as the study sought to examine the relationship between capital budgeting techniques and financing decisions. The relevant theories were well stipulated, and the findings of the study was compared to the proposition of these theories. The study was a field setting where the unit of analysis of the study was the country. The research design was therefore appropriately suited to determine the causal effect of the independent variable on the dependent variable without manipulation of any of the variable.

3.3 Target Population

According to Mugenda and Mugenda (2013) population is defined as a set of items, things, or objects with common shareable characteristics.All the 41 supermarkets in Nairobi County, whose list is provided in Appendix III as provided by Kenya Supermarket Report (2020), formed the population in this study. The key respondents were employees in the finance department, preferably the finance manager. The study was a census because the entire population was examined.

3.4 Data Collection

The research utilized a mixture of primary and secondary data. In particular, the investigator relied on data provided by the individual supermarkets on the debt-to-equity ratio and total assets. Primary data comprising of a questionnaire utilizing a five-point Likert scale consisting of close-ended questions only was employed to gauge the capital budgeting techniques employed in the supermarkets. Cross-sectional data was collected.

3.5 Data Analysis

The analysis of data was systematic as data was first assessed for completeness, it was then tabulated and analyzed by use of relevant charts. SPSS was adopted in undertaking empirical analysis where test of significance was determined by the use of F test. Descriptive statistics was undertaken by use of measures of central tendency comprising of mean, mode and standard deviation. Correlation analysis sought to determine capital budgeting techniques are associated with financing decisions regression analysis was employed by the study. The study employed multiple linear regression.

The significance of the study was determined at 95% confidence level that implies that the study was undertaken with an allowance of 5% chance of making type I error. The study therefore rejected the null hypothesis when the significance level was below 0.05 and the study failed to reject the null hypothesis if the significance was above 0.05.

3.5.1 Diagnostic Tests

Diagnostic tests refers to tests that are undertaken to diagnose whether certain conditions have been complied with. The study deployed regression analysis and therefore the data collected had to comply with the assumptions and necessary conditions required in order to

accurately undertake multiple regression analysis. The conditions stipulated by OLS according to Grewal et al., (2004) include having linear data in parameters, data should be homoscedastic, no autocorrelations, while the error terms should be normally distributed. The conditions also infer that the variables should not indicate multi-collinearity, and as such Gauss-Markov theorem referred to these assumptions as Best Linear Unbiased Estimators.

The reliability of the results would highly depend on whether the data complied with these assumptions. Where data failed certain tests, then the study advocated for the treatment of data to ensure that that the data was properly designed to undertake the statistical test (Gall et al., 2006).

Linearity test was undertaken through the use of Normal P-P plots where if the estimators follow the diagonal line, then the data was said to be linear. Normality test on the other hand was determined by Shapiro-Wilk test. Breush-Pagan test was effective in determining whether data was homoscedastic or not. Variation inflation factor (VIF) was also instrumental in determining whether there was multi-collinearity and Durbin Watson was considered for test of autocorrelations (Gall et al., 2006).

3.5.2 The Model of Analysis

The multiple regression model that was adopted in the study took the form:

$$Y_1 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + + \beta_6 X_6 + \beta_7 X_7 + \epsilon$$

Where:

Y_1 = Financing Decisions

α = Constant

$\beta_1 - \beta_4$ = Beta coefficients

X_1 = Net Present Value (NPV)

X_2 = Internal Rate of Return (IRR)

X_3 = Profitability Index (PI)

X_4 = Modified Internal Rate of Return (MIRR)

X_5 = Pay Back Period (PBP)

X_4 = Accounting Rate of Return (ARR).

X_7 = Firm Size

ϵ = error term

Table 3.1: Operationalization of the Study Variables

Variables	Type of Variable	Indicators	Measurement Scale	Tools of Analysis
Financing Decisions	Dependent Variable	• Debt to Equity (D/E) Ratio (Debt Employed/Total Equity Capital Employed)	Ratio Scale	• Inferential Statistics (Pearson Correlation and Multiple Linear Regression Analysis)
Net Present Value (NPV)	Independent Variable	Utilization of NPV for; • Expansion in existing operations • Capital investment projects • Expansion in new operations • Foreign operations • General administrative projects • Social projects	Ordinal – Likert Scale	• Descriptive Statstics • Inferential Statistics (Pearson Correlation and Multiple Linear Regression Analysis)

Variables	Type of Variable	Indicators	Measurement Scale	Tools of Analysis
Internal Rate of Return (IRR)	Independent Variable	Utilization of IRR for: • Expansion in existing operations • Capital investment projects • Expansion in new operations • Foreign operations • General administrative projects • Social projects	Ordinal – Likert Scale	• Descriptive Statstica • Inferential Statistics (Pearson Correlation and Multiple Linear Regression Analysis)
Profitability Index (PI)	Independent Variable	Utilization of PI for: • Expansion in existing operations • Capital investment projects • Expansion in new operations • Foreign operations • General administrative projects • Social projects	Ordinal – Likert Scale	• Descriptive Statstica • Inferential Statistics (Pearson Correlation and Multiple Linear Regression Analysis)
Modified Internal Rate of Return (MIRR)	Independent Variable	Utilization of MIRR for: • Expansion in existing operations • Capital investment projects • Expansion in new operations • Foreign operations • General administrative projects • Social projects	Ordinal – Likert Scale	• Descriptive Statstica • Inferential Statistics (Pearson Correlation and Multiple Linear Regression Analysis)
Pay Back Period (PBP)	Independent Variable	Utilization of PBP for: • Expansion in existing operations • Capital investment projects • Expansion in new operations • Foreign	Ordinal – Likert Scale	• Descriptive Statstica • Inferential Statistics (Pearson Correlation and Multiple Linear Regression Analysis)

Variables	Type of Variable	Indicators	Measurement Scale	Tools of Analysis
		operations • General administrative projects • Social projects		
Accounting Rate of Return (ARR).	Independent Variable	Utilization of ARR for: • Expansion in existing operations • Capital investment projects • Expansion in new operations • Foreign operations • General administrative projects • Social projects	Ordinal – Likert Scale	• Descriptive Statstics • Inferential Statistics (Pearson Correlation and Multiple Linear Regression Analysis)
Firm Size	Control Variable	• Natural logarithm of total assets	Ratio Scale	• Inferential Statistics (Pearson Correlation and Multiple Linear Regression Analysis)

3.5.3 Tests of Significance

The significance of the study was determined at 95% confidence level that implies that the study was undertaken with an allowance of 5% chance of making type I error. The study therefore rejected the null hypothesis when the significance level was below 0.05 and the study failed to reject the null hypothesis if the significance was above 0.05.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

The chapter discusses the information examination, explanation together with the deliberations of the study after the analysis of data collected. The study initially highlights the response rate of the study, the descriptive of the study, interpretation and discussion of the study findings.

4.2 Response Rate

It insinuates the number of responses that the study was able to gather divided by the total number of expected or targeted respondents, which is clearly indicated in Table 4.1.

Table 4.1: Study Response Rate

Response	Frequency	Percentage
Returned	40	97.56%
Unreturned	01	02.44%
Total	41	100%

Table 4.1 showcases that forty-one questionnaires were issued to supermarkets in Nairobi County. This research findings exhibit that from the 41 targeted respondents where only one respondent failed to adequately return the filled questionnaire. This is translated to 97.56% response rate and as such as stated by Mugenda and Mugenda (2013), a response rate of 70% and above is sufficient and adequate for analysis.

4.3 Background and Respondent Characteristics

The features of data collected from the respondents assessed background information to describe the nature of the study respondents in terms of age, gender, education level and the

number of years of experience. The total 41 respondents enlisted for the study who were employees in the finance department in the Nairobi Super Markets, preferably finance managers. Consequently, 40 respondents participated in the study.

4.3.1 Gender

The distribution of gender among study respondents depicting capital budgeting techniques is displayed in the table as follows.

Table 4.2: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	23	57.5	57.5	57.5
	Female	17	42.5	42.5	100.0
	Total	40	100.0	100.0	

The study established in Table 4.2 that 57.5% of those surveyed were males while 42.5%percent were females. Gender was critical factor in relation to capital budgeting techniques as the findings were indicative of the importance of different gender towards use of investment appraisal techniques.

4.3.2 Age

The target respondents were requested to define their present age. This was to determine if age has any connection with the perception of capital budgeting techniques. The results are shown in Table 4.3.

Table 4.3: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20- 29	3	7.5	7.5	7.5
	30– 39	10	25.0	25.0	32.5

	40 – 49	22	55.0	55.0	87.5
	50 and above	5	12.5	12.5	100.0
	Total	40	100.0	100.0	

The results indicate that the age distribution of the respondents comprise of 55% of the respondents being in the age bracket of 40-49 years of age. The 30-39 age bracket constitutes25%, proportion of those aged 50 years and more was 12.5%, while the least proportion of 7.5% of respondents were aged between 20-29. The age distribution of respondents indicate that the distribution is normal and realistic as managerial positions targeted by the study is mostly obtained by people with adequate experience and therefore most respondents were in the age bracket of 40-49 years.Age may have a bearing on the respondents perception towards capital budgeting techniques. In addition, respondents who are aged more might have greater in-depth knowledge on capital budgeting techniques.

4.3.3 Education Qualifications

The education level was also assessed for the respondents to determine whether certain responses were biased depending on education achievements.

Table 4.4: Education Qualifications

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary	1	2.5	2.5	2.5
	Diploma	12	30.0	30.0	32.5
	Bachelor Degree	20	50.0	50.0	82.5
	Postgraduate	7	17.5	17.5	100.0
	Total	40	100.0	100.0	

Table 4.4 indicates the distribution of respondents in form of their education qualifications from which 50% had bachelor's degree while 30% diploma those who had postgraduate

qualifications constituted 17% proportion, while those who had secondary qualifications as highest educational achievement constituted 2.5%. The high number of graduate degree respondents indicated that they clearly understood capital budgeting techniques and therefore could respond to the questionnaire appropriately.

4.3.4 Work Experience

Experience of the respondents was determined in terms of the number of years of relevant work experience inrespective supermarkets that they are currently engaged in. This was to determine if duration of working under one employer has any bearing on the perception of capital budgeting techniques. Results are displayed in Table 4.5.

Table 4.5: Work Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5 and below	5	12.5	12.5	12.5
	6 – 10	16	40.0	40.0	52.5
	11 – 15	12	30.0	30.0	82.5
	16 – 20	5	12.5	12.5	95.0
	21 and above	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

Table 4.5 reveals the various years the target sample had worked for respective supermarkets that they are currently engaged in. The highest proportion of the respondents that constitutes 40% had worked for their respective supermarkets for 6 to 10 years. The proportion of respondents who had worked for their respective supermarkets for 11 to 15 was 30% and those who worked for periods ranging from 16 to 20 years and 5 years and below constituted 12.5% each. The least proportion of the respondents that constituted 5% had worked for their respective supermarkets for 21 years and above. The uneven spread of work experiences

maybe an indication of bias although the respondents were randomly distributed. Employees who have worked longer in their respective supermarkets are more likely to have more information and knowledge on capital budgeting techniques and capital structure of the respective supermarkets they work for as they are they more likely to have scaled up the corporate ladder and be engaged in decision-making roles.

4.4 Descriptive Statistics

Descriptive statistics entailed the discussion of the study variables in terms of the frequency of respondents to understand the various responses on the questions asked in the questionnaire in relation to each study variable. The percentage and frequency of the responses are therefore expressed in the study.

The respondents were required to express capital budgeting technique they utilize the most. The responses are summarized in Table 4.6.

Table 4.6: Most Used Capital Budgeting Appraisal Technique

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Net Present Value	1	2.5	2.5	2.5
	Internal Rate of Return	10	25.0	25.0	27.5
	Profitability Index	19	47.5	47.5	75.0
	Modified Internal Rate of Return	6	15.0	15.0	90.0
	Pay Back Period	2	5.0	5.0	95.0
	Accounting Rate of Return	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

Table 4.6 displays that profitability index is the most used capital budgeting technique, with 47.5% of the respondents stating that they mostly utilize it. 25% of the respondents mostly

utilize IRR, 15% MIRR, while pay back period and ARR are utilized each mostly by 5% of the respondents. The least proportion of the respondents, which is 2.5% mostly used NPV.

4.4.1 Net Present Value

The target sample was asked to rate the attributes of NPV present in the respective supermarkets they are engaged in. The ordinal scale that was adopted in 5-point Likert scale to express the respondent's view in regard to NPV present in the supermarkets as expressed in Table 4.7.

Table 4.7: Net Present Value

	N	Mean	Std. Deviation
How often you use the NPV capital budgeting technique.	40	4.3250	1.02250
How often do you utilize NPV to appraise expansion in existing operations projects?	40	4.4500	.93233
How often do you utilize NPV to appraise capital investment projects?	40	4.2500	.86972
How often do you utilize NPV to appraise expansion in new operations?	40	4.3250	.69384
How often do you utilize NPV to appraise foreign operations?	40	3.8750	.93883
How often do you utilize NPV to appraise general administrative projects?	39	3.9231	.95655
How often do you utilize NPV to appraise social projects?	39	3.8718	1.10452
Composite Mean		4.1457	.93118
Valid N (listwise)	39		

The supermarkets always use the NPV capital budgeting technique. This is exhibited by a mean of 4.3250 and standard deviation of 1.02250. The supermarkets always employ NPV to appraise expansion in existing operations projects. This is exhibited by a mean of 4.4500 and a standard deviation of 0.93233. The supermarkets always utilize NPV to appraise capital

investment projects. This is exhibited by a mean of 4.2500 and a standard deviation of 0.86972. The supermarkets always utilize NPV to appraise expansion in new operations. This is exhibited by a mean of 4.3250 and a standard deviation of 0.69384. The supermarkets often utilize NPV to appraise foreign operations. This is exhibited by a mean of 3.8750 and a standard deviation of 0.93883. The supermarkets often utilize NPV to appraise general administrative projects. This is exhibited by a mean of 3.9231 and a standard deviation of 0.95655. The supermarkets often utilize NPV to appraise social projects. This is exhibited by a mean of 3.8718 and a standard deviation of 1.10452. Overall, the supermarkets always employ the NPV capital budgeting technique. This is exhibited by the composite mean of 4.1457and a standard deviation of 0.93118.

4.4.2 Internal Rate of Return

The target sample was asked to rate the attributes of IRR present in the respective supermarkets they are engaged in. The ordinal scale where a 5-point Likert scale was used to express the extent to which respondents agreed with the use of IRR present in the supermarkets. The findings are tabulated in table 4.8.

Table 4.8: Internal Rate of Return

	N	Mean	Std. Deviation
How often you use the IRR capital budgeting technique.	40	4.3000	1.04268
How often do you utilize IRR to appraise expansion in existing operations projects?	40	4.2250	.99968
How often do you utilize IRR to appraise capital investment projects?	40	3.6250	1.23387
How often do you utilize IRR to appraise expansion in new operations?	40	4.2000	.82275
How often do you utilize IRR to appraise foreign operations?	40	2.1500	.62224

How often do you utilize IRR to appraise general administrative projects?	40	3.6000	.90014
How often do you utilize IRR to appraise social projects?	39	2.4872	1.14413
Composite mean		3.5125	.96650
Valid N (listwise)	39		

The supermarkets always use the IRR capital budgeting technique. This is exhibited by a mean of 4.3000 and standard deviation of 1.04268. The supermarkets always employ IRR to appraise expansion in existing operations projects. This is exhibited by a mean of 4.2250 and a standard deviation of 0.99968. The supermarkets often utilize IRR to appraise capital investment projects. This is exhibited by a mean of 3.6250 and a standard deviation of 1.23387. The supermarkets always utilize IRR to appraise expansion in new operations. This is exhibited by a mean of 4.2000 and a standard deviation of 0.82275. The supermarkets sometimes utilize IRR to appraise foreign operations. This is exhibited by a mean of 2.1500 and a standard deviation of 0.62224. The supermarkets often utilize IRR to appraise general administrative projects. This is exhibited by a mean of 3.6000 and a standard deviation of 0.90014. The supermarkets sometimes utilize IRR to appraise social projects. This is exhibited by a mean of 2.4872 and a standard deviation of 1.14413. Overall, the supermarkets often employ the IRR capital budgeting technique. This is exhibited by the composite mean of 3.5125 and a standard deviation of 0.96650.

4.4.3 Profitability Index

The target sample was asked to rate the attributes of PI present in the respective supermarkets they are engaged in. The 5-point likert scale was used and there an ordinal measurement was exercised to determine respondent's view in regard to PI present in the supermarkets. Consequently, PI statistics were derived, and the outcomes exhibited in the Table 4.9.

Table 4.9: Profitability Index

	N	Mean	Std. Deviation
How often you use the PI capital budgeting technique.	40	2.4500	1.03651
How often do you utilize PI to appraise expansion in existing operations projects?	40	2.9000	.70892
How often do you utilize PI to appraise capital investment projects?	40	1.9500	.55238
How often do you utilize PI to appraise expansion in new operations?	40	2.0250	.61966
How often do you utilize PI to appraise foreign operations?	40	3.4750	1.56872
How often do you utilize PI to appraise general administrative projects?	40	2.1500	.62224
How often do you utilize PI to appraise social projects?	40	4.0750	1.22762
Composite Mean		2.7179	.90515
Valid N (listwise)	40		

The supermarkets sometimes use the PI capital budgeting technique. This is exhibited by a mean of 2.4500 and standard deviation of 1.03651. The supermarkets sometimes employ PI to appraise expansion in existing operations projects. This is exhibited by a mean of 2.9000 and a standard deviation of 0.70892. The supermarkets rarely utilize PI to appraise capital investment projects. This is exhibited by a mean of 1.9500 and a standard deviation of 0.55238. The supermarkets sometimes utilize PI to appraise expansion in new operations. This is exhibited by a mean of 2.0250 and a standard deviation of 0.61966. The supermarkets often utilize PI to appraise foreign operations. This is exhibited by a mean of 3.4750 and a standard deviation of 1.56872. The supermarkets sometimes utilize PI to appraise general administrative projects. This is exhibited by a mean of 2.1500 and a standard deviation of 0.62224. The supermarkets always utilize PI to appraise social projects. This is exhibited by a mean of 4.0750 and a standard deviation of 1.22762. Overall, the supermarkets often

sometimes employ the PI capital budgeting technique. This is exhibited by the composite mean of 2.7179 and a standard deviation of 0.90515.

4.4.4 Modified Internal Rate of Return

The target sample was asked to rate the attributes of MIRR present in the respective supermarkets they are engaged in. An ordinal measurement scale was utilized to measure the variable through a five-point assorted scale to quantity the respondent's view towards MIRR present in the supermarkets. Consequently, MIRR statistics were derived, and the outcomes exhibited in the Table 4.10.

Table 4.10: Modified Internal Rate of Return

	N	Mean	Std. Deviation
How often you use the MIRR capital budgeting technique.	40	4.3000	1.06699
How often do you utilize MIRR to appraise expansion in existing operations projects?	40	4.1000	.87119
How often do you utilize MIRR to appraise capital investment projects?	40	4.1250	.68641
How often do you utilize MIRR to appraise expansion in new operations?	40	4.1000	.87119
How often do you utilize MIRR to appraise foreign operations?	40	3.9000	.95542
How often do you utilize MIRR to appraise general administrative projects?	40	3.6750	1.26871
How often do you utilize MIRR to appraise social projects?	40	3.8500	1.33109
Composite Mean		4.0071	1.00729
Valid N (listwise)	40		

The supermarkets always use the MIRR capital budgeting technique. This is exhibited by a mean of 4.3000 and standard deviation of 1.06699. The supermarkets always employ MIRR to appraise expansion in existing operations projects. This is exhibited by a mean of 4.1000

and a standard deviation of 0.87119. The supermarkets always utilize MIRR to appraise capital investment projects. This is exhibited by a mean of 4.1250 and a standard deviation of 0.68641. The supermarkets always utilize MIRR to appraise expansion in new operations. This is exhibited by a mean of 4.1000 and a standard deviation of 0.87119. The supermarkets often utilize MIRR to appraise foreign operations. This is exhibited by a mean of 3.9000 and a standard deviation of 0.95542. The supermarkets often utilize MIRR to appraise general administrative projects. This is exhibited by a mean of 3.6750 and a standard deviation of 1.26871. The supermarkets often utilize MIRR to appraise social projects. This is exhibited by a mean of 3.8500 and a standard deviation of 1.33109. Overall, the supermarkets always employ the MIRR capital budgeting technique. This is exhibited by the composite mean of 4.0071 and a standard deviation of 1.00729.

4.4.5 Pay Back Period

The target sample was asked to rate the attributes of PBP present in the respective supermarkets they are engaged in. An ordinal measurement scale was utilized to measure the variable through a five-point assorted scale to quantity the respondent's view towards PBP present in the supermarkets. Consequently, PBP statistics were derived, and the outcomes exhibited in the Table 4.11.

The supermarkets often use the PBP capital budgeting technique. This is exhibited by a mean of 3.8000 and standard deviation of 1.18105. The supermarkets often employ PBP to appraise expansion in existing operations projects. This is exhibited by a mean of 3.7000 and a standard deviation of 1.34355. The supermarkets always utilize PBP to appraise capital investment projects. This is exhibited by a mean of 4.0750 and a standard deviation of 0.79703.

Table 4.11: Pay Back Period

	N	Mean	Std. Deviation
How often you use the PBP capital budgeting technique.	40	3.8000	1.18105
How often do you utilize PBP to appraise expansion in existing operations projects?	40	3.7000	1.34355
How often do you utilize PBP to appraise capital investment projects?	40	4.0750	.79703
How often do you utilize PBP to appraise expansion in new operations?	40	2.1750	.63599
How often do you utilize PBP to appraise foreign operations?	40	3.4500	1.06096
How often do you utilize PBP to appraise general administrative projects?	39	2.6410	1.58093
How often do you utilize PBP to appraise social projects?	40	2.4500	1.06096
Composite Mean		3.1844	1.09435
Valid N (listwise)	39		

The supermarkets sometimes utilize PBP to appraise expansion in new operations. This is exhibited by a mean of 2.1750 and a standard deviation of 0.63599. The supermarkets often utilize PBP to appraise foreign operations. This is exhibited by a mean of 3.4500 and a standard deviation of 1.06096. The supermarkets sometimes utilize PBP to appraise general administrative projects. This is exhibited by a mean of 2.6410 and a standard deviation of 1.06096. The supermarkets sometimes utilize PBP to appraise social projects. This is exhibited by a mean of 2.4500 and a standard deviation of 1.06096. Overall, the supermarkets often employ the PBP capital budgeting technique. This is exhibited by the composite mean of 3.1844 and a standard deviation of 1.09435.

4.4.6 Accounting Rate of Return

The target sample was asked to rate the attributes of ARR present in the respective supermarkets they are engaged in. The variable also used 5-point ordinal Likert Scale to

capture the respondent's perspective on ARR present in the supermarkets. Consequently, ARR statistics are described accordingly in Table 4.12.

Table 4.12: Pay Back Period

	N	Mean	Std. Deviation
How often you use the ARR capital budgeting technique.	40	2.6250	.92508
How often do you utilize ARR to appraise expansion in existing operations projects?	40	1.9250	.57233
How often do you utilize ARR to appraise capital investment projects?	40	1.9500	.63851
How often do you utilize ARR to appraise expansion in new operations?	40	4.0250	.89120
How often do you utilize ARR to appraise foreign operations?	40	2.1000	.59052
How often do you utilize ARR to appraise general administrative projects?	40	2.1500	.66216
How often do you utilize ARR to appraise social projects?	40	3.5750	.95776
Composite Mean		2.6214	.74822
Valid N (listwise)	40		

The supermarkets sometimes use the ARR capital budgeting technique. This is exhibited by a mean of 2.6250 and standard deviation of 0.92508. The supermarkets rarely employ ARR to appraise expansion in existing operations projects. This is exhibited by a mean of 1.9250 and a standard deviation of 0.57233. The supermarkets rarely utilize ARR to appraise capital investment projects. This is exhibited by a mean of 1.9500 and a standard deviation of 0.63851. The supermarkets always utilize ARR to appraise expansion in new operations. This is exhibited by a mean of 4.0250 and a standard deviation of 0.89120. The supermarkets often utilize ARR to appraise foreign operations. This is exhibited by a mean of 3.9000 and a standard deviation of 0.59052. The supermarkets sometime utilize ARR to appraise general

administrative projects. This is exhibited by a mean of 2.1500 and a standard deviation of 0.66216. The supermarkets often utilize ARR to appraise social projects. This is exhibited by a mean of 3.5750 and a standard deviation of 0.95776. Overall, the supermarkets sometimes employ the ARR capital budgeting technique. This is exhibited by the composite mean of 2.6214 and a standard deviation of 0.74822.

4.4.7 Firm Size

A descriptive analysis of the control variable, which was of the ratio measurement scale, was conducted. The descriptive analysis included measures of central tendency that entailed mean together with standard deviation, and the median. The minimum and maximum statistic and Kurtosis and Skewness were also generated.

Table 4.13: Firm Size Descriptive Statistics

N	Valid	40
	Missing	0
Mean		.1245
Median		.1174
Std. Deviation		.07757
Skewness		1.053
Std. Error of Skewness		.374
Kurtosis		2.011
Std. Error of Kurtosis		.733
Minimum		.01
Maximum		.38

Findings in Table 4.13 show highest value for the firm size after getting the inverse of natural logarithm is 51,936,664 and the lowest value is 248,526. The mean was 16,039,185 andthe value of the standard deviation depicts variability in firm size of 17,545,823. The median score was 6,821,041.The data in the series is normally distributed because it has a kurtosis statistic lying within the range of -3 to +3 and skewness statistic exhibited that is within the range of -0.8 to +0.8.

4.4.8 Debt to Equity Ratio

A descriptive analysis of the response variable, which was of the ratio measurement scale, was conducted. The descriptive analysis included measures of central tendency that entailed mean together with standard deviation and the median. The minimum and maximum statistic and Kurtosis and Skewness were also generated.

Table 4.14: Debt to Equity Ratio Descriptive Statistics

N	Valid	40
	Missing	0
Mean		.1245
Median		.1174
Std. Deviation		.07757
Skewness		1.053
Std. Error of Skewness		.374
Kurtosis		2.011
Std. Error of Kurtosis		.733
Minimum		.01
Maximum		.38

Findings in Table 4.14 show highest value for the debt to equity ratio is 38% and the lowest value is 1%. The mean was 12.45% andthe value of the standard deviation depicts variability in debt to equity ratio of 7.76%. The median score was 11.74%.The data in the series is normally distributed because it has a kurtosis statistic lying within the range of -3 to +3, although the skewness statistic exhibited was out of range of -0.8 to +0.8.

4.5 Diagnostic Tests

The study deployed regression analysis and therefore the data collected had to comply with the assumptions and necessary conditions required in order to accurately undertake multiple regression analysis. The conditions stipulated by OLS according to Grewal et al., (2004) include having linear data in parameters, data should be homoscedastic, no autocorrelations,

while the error terms should be normally distributed. The conditions also infer that the variables should not indicate multi-collinearity, and as such Gauss-Markov theorem referred to these assumptions as Best Linear Unbiased Estimators.

The reliability of the results would highly depend on whether the data complied with these assumptions. Where data failed certain tests, then the study advocated for the treatment of data to ensure that that the data was properly designed to undertake the statistical test (Gall et al., 2006).

Linearity test was undertaken through the use of Normal P-P plots where if the estimators follow the diagonal line, then the data was said to be linear. Normality test on the other hand was determined by Shapiro-Wilk test. Breush-Pagan test was effective in determining whether data was homoscedastic or not. Variation inflation factor (VIF) was also instrumental in determining whether there was multi-collinearity and Durbin Watson was considered for test of autocorrelations (Gall et al., 2006).

4.5.1 Normality Test

Shapiro-Wilk tests is deployed for normality test as depicted in table4.15.

Table 4.15: Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
D_E	.119	40	.159	.935	40	.023
NPV	.336	40	.000	.700	40	.000
IRR	.302	40	.000	.847	40	.000
PI	.364	40	.000	.634	40	.000
MIRR	.314	40	.000	.790	40	.000
PBP	.283	40	.000	.778	40	.000
ARR	.403	40	.000	.614	40	.000
Firm_Size	.105	40	.200*	.937	40	.027

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The null hypothesis of Shapiro Wilk test is that data is normally distributed. However, p-value of less than 0.05 indicates that the null hypothesis is rejected meaning that the distribution of data is not normally distributed. All the variables have p-values of Shapiro Wilk test of less than 0.05 that indicates that data is not normally distributed in the variables. This states that data failed the normality test and therefore it need to be treated in order to undertake regression analysis. The data was treated by standardizing the variables.

When the two complementary tests contradict each other, the Kolmogrov-Sminorv test takes precedence since the Shapiro-Wilk test sometimes fails to work well where large amount of data is involved. Thus, for debt to equity ratio and firm size, the null hypothesis is not rejected. Hence, the data series of the variables are normally distributed.

4.2.2 Test for Homoscedacity

Homoscedasticity test was also undertaken by the use of Breush-Pagan Test which is undertaken by saving both the unstandardized and standardized residuals. The resultant variable is squared and regressed against the independent variables where the table 4.16 indicates the significance of the resultant F-test. The homoscedasticity tests for all the predictor variables employed in this research are enlisted in Table 4.16.

Table 4.16: Test for Homoscedacity

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	7	.000	1.181	.341[b]
	Residual	.002	32	.000		
	Total	.003	39			

a. Dependent Variable: RES_1SQ

b. Predictors: (Constant), Firm_Size, ARR, MIRR, PI, PBP, NPV, IRR

Table 4.16 indicates that the p-value is greater than 0.05 (p>0.05) and therefore the study fails to reject the null hypothesis and therefore concludes that the data is homoscedastic.

4.2.3 Test for Multicollinearity

Multi-collinearity determines whether independent variables are actually independent against each other or there is a dependence amongst them. Table 4.17 indicates the VIF values where values greater than 10 indicates presence of multi-collinearity, while VIF of less than 10 indicates that there is no multi0collinearity.

Table 4.17: Multicollinearity Statistics

		Collinearity Statistics	
Model		**Tolerance**	**VIF**
1	NPV	.627	1.596
	IRR	.568	1.760
	PI	.883	1.133
	MIRR	.859	1.164
	PBP	.801	1.248
	ARR	.750	1.334
	Firm_Size	.696	1.437

a. Dependent Variable: D_E

The variables have VIF of less than 10 and therefore the study concludes that there is no problem of multi-collinearity among the independent variables.

4.2.4 Tests for Autocorrelation

Durbin Watson was used to measure autocorrelations and the results are depicted in table 4.18.

Table 4.18: Autocorrelation Test

Model	**Durbin-Watson**
1	1.679[a]

a. Predictors: (Constant), Firm_Size, ARR, MIRR, PI, PBP, NPV, IRR
b. Dependent Variable: D_E

The range of Durbin-Watson is 0 to 4 whereas the extreme values of 0 and 4 indicates severe problem of either positive or negative autocorrelations. A range of 1.5 to 2.5 indicates that there is no problem of autocorrelations. Other values indicate that the model has either negative or positive autocorrelations. A score of 1.679 therefore indicates that there is no problem of autocorrelations in the data (Field, 2009).

4.6 Inferential Statistics

Inferential statistics uses data analysis with the intention of inferring properties of an underlying distribution of probability. It is used in testing hypothesis and therefore describes the properties of the population such as explaining relationships among study variables. The inferential static that was employed in this study includes correlation as well as regressional analysis.

4.6.1 Correlation Analysis

Correlation analysis shows the association between the independent variables and the dependent variable of the study. It ranges from 0 to 1 and may either be positive or negative. The strength of the association is indicated by the extent to which the value is close to 1 while lack of association is determined by the extent to which the correlation is near 0. Pearson's correlation was deployed in this study.

Table 4.19: Correlation Analysis

		D_E	NPV	IRR	PI	MIRR	PBP	ARR	Firm_Size
D_E	Pearson Correlation	1	.090	.249	-.107	.033	-.075	.016	.540**
	Sig. (2-tailed)		.582	.122	.511	.841	.646	.921	.000
NPV	Pearson Correlation	.090	1	.501**	-.140	-.043	-.201	-.444**	.311

	Sig. (2-tailed)	.582		.001	.388	.791	.214	.004	.050
IRR	Pearson Correlation	.249	.501**	1	-.063	-.262	-.322*	-.363*	.349*
	Sig. (2-tailed)	.122	.001		.699	.102	.043	.021	.027
PI	Pearson Correlation	-.107	-.140	-.063	1	-.083	-.033	.026	-.326*
	Sig. (2-tailed)	.511	.388	.699		.611	.841	.874	.040
MIRR	Pearson Correlation	.033	-.043	-.262	-.083	1	.287	.037	.057
	Sig. (2-tailed)	.841	.791	.102	.611		.072	.822	.728
PBP	Pearson Correlation	-.075	-.201	-.322*	-.033	.287	1	.152	.105
	Sig. (2-tailed)	.646	.214	.043	.841	.072		.350	.519
ARR	Pearson Correlation	.016	-.444**	-.363*	.026	.037	.152	1	-.031
	Sig. (2-tailed)	.921	.004	.021	.874	.822	.350		.852
Firm_Size	Pearson Correlation	.540**	.311	.349*	-.326*	.057	.105	-.031	1
	Sig. (2-tailed)	.000	.050	.027	.040	.728	.519	.852	
	N	40	40	40	40	40	40	40	40

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.18 displays that only firm size is significantly correlated at the 5% significance level to the capital structure. They have a positive significant correlation. None of the capital budgeting techniques are significantly correlated at the 5% significance level to capital structure.

4.6.2 Multiple Linear Regression Analysis

The undertaking of regression analysis was to determine the significance of the relationship between the study variables. The data was standardized since it was treated as it failed on normality test. The F distribution was therefore utilized in the study in order to express the significance level, where a p-value of less than 0.05 indicates that the null hypothesis is

rejected. The study fails to reject the null hypothesis if the p-value is greater than 0.05. The findings are displayed form Table 4.19 through to Table 4.21.

Table 4.19: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.580[a]	.336	.191	.06977

a. Predictors: (Constant), Firm_Size, Zscore(ARR), Zscore(MIRR), Zscore(PI), Zscore(PBP), Zscore(NPV), Zscore(IRR)
b. Dependent Variable: D_E

The Co-efficient of Determination (R^2) indicates the extent to which changes in the dependent variable are explained by the model. From Table 4.19, the R^2 value is 0.336, a discovery that the capital budgeting techniques and the control variable entailing firm size cause 33.6% of the deviations in financing decisions, other factors are responsible for the other changes in financing decisions and are not included in the model.

Table 4.20: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.079	7	.011	2.314	.050[b]
	Residual	.156	32	.005		
	Total	.235	39			

a. Dependent Variable: D_E
b. Predictors: (Constant), Firm_Size, Zscore(ARR), Zscore(MIRR), Zscore(PI), Zscore(PBP), Zscore(NPV), Zscore(IRR)

The null hypothesis is that the capital budgeting techniques and the control variable entailing firm size do not significantly influence capital structure. The p-value was obtained as 0.050 that indicates that the study at 95% confidence level does fails to reject the null hypothesis. The conclusion of the study therefore indicates that the study fails to agree that capital budgeting techniques significantly influences capital structure of the firm.

The null hypothesis was that there was no substantial significant relationship between each capital budgeting techniques and the control variable entailing firm size and the capital structure. All the capital budgeting techniques variables have significance values that are greater than the critical significance 0.05 value. Firm size however had a significance value (0.02) that was less than the critical significance 0.05 value. Additionally, the T critical figure for a two-tailed test is ±2.02. The T values of all the response variables utilized in the study fall within the range of ±2.02 except the t value of firm size (3.411). Thus, the null hypothesis that each capital budgeting technique does not significantly affect the capital structure is not rejected. Therefore, each capital budgeting techniques has no statistically significant effect on capital structure. However, the null hypothesis that firm size does not significantly impact on capital budgeting is rejected. Therefore, firm size has a significant positive relationship with capital structure.

Table 4.21: Model Coefficients

Table 4.21: Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	-.423	.161		-2.629	.013	-.751	-.095
	Zscore(NPV)	-.012	.014	-.153	-.839	.408	-.041	.017
	Zscore(IRR)	.008	.015	.100	.524	.604	-.022	.038
	Zscore(PI)	.005	.012	.070	.456	.651	-.019	.030
	Zscore(MIRR)	.005	.012	.069	.443	.660	-.019	.030
	Zscore(PBP)	-.012	.012	-.156	-.970	.340	-.038	.013
	Zscore(ARR)	.002	.013	.022	.133	.895	-.025	.028
	Firm_Size	.345	.101	.589	3.411	.002	.139	.550

s

The following model was thus developed;

$$\mathbf{Y = -0.423 + 0.345X_1}$$

Where;

Y = Debt to Equity Ratio

X_1 = Firm Size

This implies that when firm size is equal to zero, the debt to equity ratio is -0.423**.** Subsequently, when one improves firm size by one unit, there is an increase in the debt to equity ratio by 0.345units.

4.7 Interpretation and Discussion of Findings

This research endeavoured to discover the relationship amongst capital budgeting techniques and financing decisions among major supermarkets in Nairobi County, Kenya. This research sought to unveil the effect of the capital budgeting techniques entailing Net Present Value (NPV), Internal Rate of Return (IRR), Profitability Index (PI), Modified Internal Rate of Return (MIRR), Pay Back Period (PBP), and Accounting Rate of Return (ARR) on financing decisions among major supermarkets in Nairobi County, Kenya. The study also sought to determine the effect of firm size on financing decisions among major supermarkets in Nairobi County, Kenya. The capital budgeting techniques variables were not normally distributed as exhibited by the Shapiro-Wilk and Kolmogrov-Sminorv tests. Thus, the data series were standardized as a remedy for rectifying non-normality of distribution.

The study findings established that the Net Present Value (NPV) capital budgeting technique was always utilized by the major supermarkets in Nairobi County, Kenya. Further findings were that IRR, PI, MIRR and PBP capital budgeting techniques were always utilized by the major supermarkets in Nairobi County, Kenya. The final finding was that Accounting Rate of Return (ARR) capital budgeting technique was always utilized by the major supermarkets in Nairobi County, Kenya.

Further findings showed size to be significantly related to capital structure. They have a positive significant correlation. None of the capital budgeting techniques are significantly correlated at the 5% significance level to capital structure. Additional findings were that the capital budgeting techniques and firm size do not significantly influence capital structure and therefore they cannot significantly predict a firm's capital structure. The final findings were that all the capital budgeting techniques had no statistically significant effect on capital structure. However, firm size had a significant positive relationship with capital structure.

The study finding that none of the capital budgeting techniques neither had a significant association nor relationship with capital budgeting is not in tandem with Jensen's (1984) findings that indicate that there is a discipline on corporate investment decisions that comes with debt financing and it is usually not there in firms that are underleveraged and with significant free cash flows. Graham and Harvey (2002) further stipulated that firms that are highly leveraged firms which pay dividends tends to have high leverage ratio and in addition are more likely to adopt IRR and NPV in comparison with those that do not pay dividends irrespective of their size.

The findings that both PBP and IRR neither have a significant association nor relationship with capital budgeting is in tandem with Luehrman(1997) that the non-discounting capital budgeting techniques do not influence the financing decisions. Clearly there is no relation of cost of capital and the choice of either accepting or rejecting the project proposal in PBP method since it is merely based on a certain determined cut off period. The ARR approach does not take into consideration the capital opportunity cost that offsets opportunity costs and the time value of money, as it uses only the accounting profits and calculates the ARR generated by the proposed project. Even though these approaches considers the financing cost before arriving to the net income or the cash flow required to calculate them, they do not factor in premium for project that are riskier and the risk and return features of the capital investment opportunities. Therefore, the capital structure of the firms is ignored in this approach.

The findings that NPV, IRR, PI, and MIRR neither have a significant association nor relationship with capital budgeting is not in sync with Stewart (1999) that the discounting capital budgeting techniques including the NPV, IRR, PI, amongst other, take into account the minimum acceptable threshold amount, which is the firm's cost of capital.Thus, these techniques implicitly involve taking into account cost of capital since there is not project that can be accepted without meeting the minimum accepted cost of capital.

The study finding that none of the capital budgeting techniques had a significant association with capital budgeting is not congruent to Graham and Harvey (2002), who conducted a study on the link between capital budgeting and financing conditions and established that the financing decisions influenced the capital budgeting techniques conducted with the firm size

moderating the relationship. The study expounded on a concurrent decision on the magnitude and form of capital expenditures to be incurred together with a decision on which kind of financing to adopt to fund the capital expenditures requirements and established that capital budgeting and financing decisions have a common simultaneous effect on each other. A study done by Graham and Harvey (2002) established that that highly leveraged firms irrespective of the size is mostly likely going to use IRR and NPV in comparison with firms that have low debt ratios.

The study finding that firm size has a positive significant association and relationship with capital structure is in tandem to a study done by Graham and Harvey (2002), which established that large firms in comparison to small firms are to a large extent likely to adopt NPV. Large firms are most likely going to adopt NPV approach whereas small firms are more inclined to using payback criteria. PBP is particularly utilized in assessing projects that are highly uncertain. In comparison of large companies small firm projects are more unpredictable, thus they are more likely to employ equity rather than debt financing (Graham& Harvey, 2002).

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study and provides conclusion to matters discussed in the study. Similarly, the study makes recommendations arising from the study findings as well as the limitations of the study. It also highlights areas in which future research should be directed in regard to capital budgeting technique and financing decisions.

5.2 Summary

Therelationshipamongst capital budgeting techniques and financing decisions among major supermarkets in Nairobi County, was the main incentive of undertaking the study. It therefore unveiled the effect of the capital budgeting techniques entailing NPV, PI, MIRR, IRR, PBP and ARR on financing decisions among major supermarkets. Other factors that were investigated in the study, was firm size on financing decisions among major supermarkets in Nairobi County, Kenya.Thus, the data investigation, exhibition, interpretation together with conversations of the results of the research were as per the aforementioned intentions.

The tools of analysis included descriptive, regression, and correlation analysis. The descriptive statistics established that Net Present Value (NPV) capital budgeting technique was always utilized by the major supermarkets in Nairobi County, Kenya. Further findings were that IRR, PI, MIRR and PBP capital budgeting techniques were always utilized by the major supermarkets in Nairobi County, Kenya. The final finding was that Accounting Rate of Return (ARR) capital budgeting technique was always utilized by the major supermarkets in Nairobi County, Kenya.

The Pearson Correlation found that firm size is significantly correlated to the capital structure. They have a positive significant correlation. Not a single capital budgeting techniques had significant correlations to capital structure. The F test statistic equally found that capital budgeting techniques and firm size do not significantly influence capital structure hence fail to predict firm's capital structure. Additional findings were that all the capital budgeting techniques had no statistically significant effect on capital structure. However, firm size had a significant positive relationship with capital structure.

5.3 Conclusion

The conclusion provided was aligned to the study objective. The study objective was to find out the influence capital budgeting techniques on financing decisions among major supermarkets. The techniques that were assessed were NPV, IRR, ARR, PI, MIRR and PBP. Their influence on capital structure in major supermarkets was therefore determined. The study also sought to determine the effect of firm size on financing decisions among major supermarkets in Nairobi County, Kenya.

The conclusion based on study findings indicate no effect of these techniques on the capital structure and therefore they cannot significantly predict a firm's capital structure. Firm size however, had significant impact on capital structure.

5.4 Recommendations

The findings are crucial to enhance more research on capital budgeting techniques and its influence on financing decisions. Academicians will use the findings in their citation and literature review of their researches in regard to capital budgeting techniques.

The relevant authorities in the retail segment as well as the government are better informed by the findings of the study as they make decisions in the retail industry, mainly the regulator CAKand the Miinistry of Trade and Industrialization, that since it has been established that capital budgeting techniques do not have a noteworthy influence on the capital structure of supermarkets, the policy makers should not focus on capital budgeting techniques when trying to regulate the capital structure of supermarkets. However, they should encourage supermarkets to increase in size since large supermarkets are most likely to employ capital budgeting techniques, which will most likely influence their capital structure. This is because of the finding that established that firm size has a significant positive effect on capital structure of Kenyan supermarkets. There is a discipline on corporate investment decisions that comes with debt financing and it is usually not there in firms that are underleveraged and with significant free cash flows (Jensen, 1984).

The finding of the study that capital budgeting techniques do not have a noteworthy influence on the capital structure of supermarkets generates recommendations to retail market practitioners and consultants not to focus on capital budgeting techniques when deciding on

the optimal capital structure. The additional finding that firm size has a significant positive effect on capital structure of Kenyan supermarkets calls for the recommendation that the retail market practitioners and consultants should focus on the size of the retail outlets when deciding on the optimal capital structure.

5.5 Recommendations for Further Study

The study therefore undertakes various recommendations that would help in the relationship between capital budgeting techniques as well as capital structure. The study recommends that CAK and the regulator should maintain advisory roles on the retail outlets to help them in using an investment appraisal technique that may be suitable to their own operations. This results from the fact that capital budgeting techniques have no significant impact on financing decisions. The study therefore recommends that a further study should be undertaken in the global context where both developing and developed countries should be considered in the study. The findings of this study should therefore be compared whether they hold in such a scenario.

A study should also be proposed that will also involve a wider range of capital budgeting techniques such as payback period or discounted payback period. The study would also be informative if the capital structure was compared to firms that do not use any form of known and objective capital budgeting technique in the analysis and in the appraisal of investment opportunities. The moderating association between capital budgeting and capital structure should be further investigated by use of other variables, either firm specific or industry specific factors.

A study ought to be undertaken where the sole use of primary data or use of secondary data should be undertaken. This will help in mitigating the effect of using both primary and

secondary data as the unit of analysis differs from one variable to the other. The study could also implement the use of cluster analysis, discriminant analysis or granger causality should be undertaken by a future study.

5.6 Limitations of the Study

This study was conducted only in the Kenyan retail industry context due to time and cost constraints which does not give clear indication of findings if other sectors in the economy were also incorporated in the study. More uncertainties would occur if similar studies were replicated in different countries. Although the research mainly engaged primary sources of data by utilizing questionnaires, major challenges like non-responsiveness of respondents or misunderstanding of the questionnaire were encountered. Raw data could also not be utilized hence, it needed to be coded with the assistance of a SPSS to achieve a synchronized information that can be compiled and conclusions drawn. The process also consumed some considerable amount of time in compiling and recurrent delays of synchronizing the data.

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APPENDICES

Appendix I: Letter of Introduction

University of Nairobi

Dear Respondent

My name is Isse Mohodin Ali, a graduate student at the University of Nairobi. As part of my dissertation I am examining:

RELATIONSHIP BETWEEN CAPITAL BUDGETING TECHNIQUES AND FINANCING DECISION AMONG MAJOR SUPERMARKETS IN NAIROBI COUNTY, KENYA

The following questionnaire will require approximately five minutes of your time to complete. This is an academic research and information provided will be used for academic purpose only. There will be no reference to your name and strict ethical principles will be observed to ensure confidentiality. Please do not indicate your name in the questionnaire.

CONSENT SECTION

- I agree to participate in this study
- I do not agree to participate in this study

Appendix II: Questionnaire
PART A: RESPONDENTS AND FIRM DEMOGRAPHICS

1. Title of the respondent

……

2. Gender: Male ( ) Female ( )

3. Age: 20- 29 ( ) 30– 39 ( ) 40 – 49 ( ) 50 and above ( )

4. Highest education level: Secondary ( ) Diploma ( ) Bachelor Degree ( )
   Postgraduate ( )

5. Working experience with the current employer:-

5 and below ( ) 6 – 10 ( ) 11 – 15 ( ) 16 – 20 ( ) 21 and above ( )

6. Kindly specify the year of incorporation of your company

.....

7. Please specify the annual turnover (approx. in nearest thousannds) of your company for the year 2015 to 2019.

.....

8. Kindly indicate the gross annual capital budget of your company

.....

PART B: CAPITAL BUDGETING APPRAISAL TECHNIQUES

9. Which of the following capital budgeting technique(s) are used in your company for the appraisal of major investments? More than one answer is possible.

Net Present Value [ ]	Internal Rate of Return [ ]
Profitability Index [ ]	Modified Internal Rate of Return [ ]
Pay Back Period [ ]	Accounting Rate of Return [ ]

Net Present Value

10. How often do you utilize the NPV capital budgeting technique in your organization? Use 1- Never, 2 - Rarely, 3 - Sometimes, 4 - Often, 5 - Always

Component	1	2	3	4	5
How often you use the NPV capital budgeting technique.					
How often do you utilize NPV to appraise expansion in existing operations projects?					
How often do you utilize NPV to appraise capital investment projects?					
How often do you utilize NPV to appraise expansion in new operations?					
How often do you utilize NPV to appraise foreign operations?					
How often do you utilize NPV to appraise general administrative projects?					

How often do you utilize NPV to appraise social projects?					

Internal Rate of Return

11. How often do you utilize the IRR capital budgeting technique in your organization? Use 1- Never, 2 - Rarely, 3 - Sometimes, 4 - Often, 5 - Always

Component	1	2	3	4	5
How often you use the IRR capital budgeting technique.					
How often do you utilize IRR to appraise expansion in existing operations projects?					
How often do you utilize IRR to appraise capital investment projects?					
How often do you utilize IRR to appraise expansion in new operations?					
How often do you utilize IRR to appraise foreign operations?					
How often do you utilize IRR to appraise general administrative projects?					
How often do you utilize IRR to appraise social projects?					

Profitability Index

12. How often do you utilize the PI capital budgeting technique in your organization? Use 1- Never, 2 - Rarely, 3 - Sometimes, 4 - Often, 5 - Always

Component	1	2	3	4	5
How often you use the PI capital budgeting technique.					
How often do you utilize PI to appraise expansion in existing operations projects?					
How often do you utilize PI to appraise capital investment projects?					
How often do you utilize PI to appraise expansion in new operations?					
How often do you utilize PI to appraise foreign operations?					
How often do you utilize PI to appraise general administrative projects?					
How often do you utilize PI to appraise social projects?					

Modified Internal Rate of Return

13. How often do you utilize the MIRR capital budgeting technique in your organization? Use 1- Never, 2 - Rarely, 3 - Sometimes, 4 - Often, 5 - Always

Component	1	2	3	4	5

How often you use the MIRR capital budgeting technique.					
How often do you utilize MIRR to appraise expansion in existing operations projects?					
How often do you utilize MIRR to appraise capital investment projects?					
How often do you utilize MIRR to appraise expansion in new operations?					
How often do you utilize MIRR to appraise foreign operations?					
How often do you utilize MIRR to appraise general administrative projects?					
How often do you utilize MIRR to appraise social projects?					

Pay Back Period

14. How often do you utilize the PBP capital budgeting technique in your organization? Use 1- Never, 2 - Rarely, 3 - Sometimes, 4 - Often, 5 – Always

Component	1	2	3	4	5
How often you use the PBP capital budgeting technique.					
How often do you utilize PBP to appraise expansion in existing					

operations projects?					
How often do you utilize PBP to appraise capital investment projects?					
How often do you utilize PBP to appraise expansion in new operations?					
How often do you utilize PBP to appraise foreign operations?					
How often do you utilize PBP to appraise general administrative projects?					
How often do you utilize PBP to appraise social projects?					

Accounting Rate of Return

16. How often do you utilize the ARR capital budgeting technique in your organization? Use 1- Never, 2 - Rarely, 3 - Sometimes, 4 - Often, 5 - Always

Component	1	2	3	4	5
How often you use the ARR capital budgeting technique.					
How often do you utilize ARR to appraise expansion in existing operations projects?					
How often do you utilize ARR to appraise capital investment					

projects?					
How often do you utilize ARR to appraise expansion in new operations?					
How often do you utilize ARR to appraise foreign operations?					
How often do you utilize ARR to appraise general administrative projects?					
How often do you utilize ARR to appraise social projects?					

PART C: FIRM SIZE

17. Please specify the total assets which your company is in possession of

.....

PART D: FINANCING DECISIONS

18. Kindly specify the total debt that constitutes your capital structure

.....

19. Kindly specify the total equity that constitutes your capital structure

.....

Appendix III: List of Supermarkets in Nairobi County

1. Acacia Supermarkets
2. Chandarana Supermarkets
3. Cleanshelf Supermarkets
4. Eastmatt Supermarkets
5. Easy Mart Supermarket Ltd
6. Galmart Supermarket
7. G-Mart Supermarkets
8. Home Depo Supermarket
9. Homechoice Supermarket
10. Jaharis Supermarkets
11. JD's Supermarket
12. Jeska Supermarket Ltd
13. Karrymatt Supermarkets
14. Kassmart Supermarkets
15. Kimsa supermarkets
16. Leestar Supermarket
17. Maathai Supermarkets
18. Maguna Andu Supermarkets
19. Mesora Supermarkets
20. Midas Supermarket Ltd
21. Naivas Limited
22. Ng'ororgaa Supermarkets
23. PakMatt Supermarket
24. Quickmart Supermarkets
25. Rikana Supermarkets
26. Saltes Supermarkets
27. Selfridges Supermarket
28. Seraben Supermarket
29. Skymart
30. Society Stores Supermarkets
31. StageMatt Supermarket
32. Suntec Supermarkets Ltd
33. Tumaini Supermarkets
34. Tuskys
35. Uchumi Supermarkets
36. Ukwala Supermarkets
37. Wagon Shopping Limited
38. Waiyaki Way Supermarket
39. Stop & Shop Supermarket
40. Kibao Supermarket
41. Eagles Supermarket

Source: Kenya Supermarket Report (2020)

Appendix IV: Research Data

	Supermarkets	Debt	Equity	D/E Ratio	Total Assets	Firm Size
1	Chandarana Supermarkets	4688999	42699067	0.109815	42699067	1.76
2	Cleanshelf Supermarkets	9104246	51058802	0.178309	51058802	1.77
3	Eastmatt Supermarkets	14831994	51936664	0.285578	51936664	1.78
4	Easy Mart Supermarket Ltd	8172000	49085000	0.166487	49085000	1.77
5	Galmart Supermarket	7453000	50357000	0.148003	50357000	1.77
6	G-Mart Supermarkets	5870000	47203000	0.124357	47203000	1.77
7	Home Depo Supermarket	3946000	40811000	0.09669	40811000	1.75
8	Homechoice Supermarket	4631000	42030000	0.110183	42030000	1.76
9	Jaharis Supermarkets	1514640	11483744	0.131894	11483744	1.63
10	JD's Supermarket	1490979	10173507	0.146555	10173507	1.61
11	Jeska Supermarket Ltd	1206471	9267544	0.130182	9267544	1.6
12	Karrymatt Supermarkets	830437	9705198	0.085566	9705198	1.61
13	Kassmart Supermarkets	971144	8988047	0.108048	8988047	1.6
14	Kimsa supermarkets	207516	3503501	0.059231	3503501	1.51
15	Leestar Supermarket	214016	3371233	0.063483	3371233	1.5
16	Maathai Supermarkets	234698	3306974	0.070971	3306974	1.5
17	MagunaAndu Supermarkets	239938	3081768	0.077857	3081768	1.49
18	Mesora Supermarkets	244575	2968727	0.082384	2968727	1.49
19	Midas Supermarket Ltd	604760	5475693	0.110444	5475693	1.55
20	Naivas Limited	296107	5871607	0.05043	5871607	1.56
21	Ng'ororgaa Supermarkets	246703	5059029	0.048765	5059029	1.54
22	PakMatt Supermarket	209903	4539148	0.046243	4539148	1.53
23	Quickmart Supermarkets	2397642	6274877	0.382102	6274877	1.57
24	Rikana Supermarkets	702010	6603660	0.106306	6603660	1.57
25	Saltes Supermarkets	1193075	7038421	0.169509	7038421	1.58
26	Selfridges Supermarket	1672873	7548406	0.221619	7548406	1.58
27	Seraben Supermarket	2079046	8384143	0.247974	8384143	1.59
28	Skymart	5338440	38027520	0.140384	38027520	1.75
29	Society Stores Supermarkets	4270192	27357388	0.156089	27357388	1.71
30	StageMatt Supermarket	4933240	27842120	0.177186	27842120	1.71
31	Suntec Supermarkets Ltd	5537618	23112582	0.239593	23112582	1.7
32	Tumaini Supermarkets	8847	248526	0.035598	248526	1.24
33	Uchumi Supermarkets	8847	573768	0.015419	573768	1.33
34	Ukwala Supermarkets	8847	772652	0.01145	772652	1.36
35	Wagon Shopping Limited	8847	1082806	0.00817	1082806	1.39
36	Waiyaki Way Supermarket	54071	1511665	0.035769	1511665	1.42
37	Stop & Shop Supermarket	1007047	6461035	0.155865	6461035	1.57
38	Kibao Supermarket	881602	5941042	0.148392	5941042	1.56
39	Eagles Supermarket	807190	5746126	0.140476	5746126	1.56