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Determinants of Capital Budgeting Decision on Merchandising Companies in Mogadishu, Somalia

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ABSTRACT

The general objective of this study was to investigate the determinants of capital budgeting decision on merchandising companies in Mogadishu. Specifically, this study investigated the effects of company size, degree of risk and capital intensity on merchandising companies in Mogadishu. Capital budgeting decision rank among the most critical types of managerial decisions made in a company and can have major long-term implications, both positive and negative. Merchandise companies was only succeed if their capital budgeting decisions are made well In order to ensure the importance of capital budgeting decisions for merchandise companies and its determinants play the effectiveness and efficiency in merchandise companies. This study was conducted through a descriptive study. In addition the study employed a survey research design in data collection. The sampling procedure of this study is used non-probability sampling procedure particularly purposive sampling or judgmental sampling. This research employed quantitative data collection method whereby data is gathered by the use of closed ended questionnaires which are self-administered. The data collected was analyzed using the software called Statistical Package for the Social Sciences (SPSS) version 20 and results shown in terms of frequency distribution and percentages. A regression model was applied to determine the relationship between Company size, Degree of risk and Capital intensity as the independent variables and Capital Budgeting Decision for merchandise as the dependent variable. Results confirm the varying importance of the determinants of capital budgeting decision on merchandising companies in Mogadishu. In general, the results reveal that Company sizes, degree of risk and capital intensity have significant and positive effects on capital budgeting decision. The study recommends that to improve capital budgeting decision on merchandising companies in Mogadishu, Managers should make use of the DPB on all the projects when the economic situation is not certain, and the use of NPV, DPB and PI should be more frequent as these techniques have been proved to be the best.

1. Introduction

Capital budgeting decision has drawn the attention of researchers for many years but the vast majority of the research dedicated to the problem of capital budgeting was conducted in highly-developed countries, mostly in North America, Australia and Western Europe, e.g. Australia (Truong et al., 2008), Canada (Graham & Harvey, 2001), France ,(Brounen et al., 2004), Germany (Brounen et al., 2004), the Netherlands (Hermes et al., 2007), Sweden (Sandahl & Sjögren, 2003), the UK (Brounen et al., 2004), and the USA (Graham & Harvey, 2001). The results of the studies are widely known, especially in academic circles, and they undoubtedly had an influence on the development of theory and its teaching as well as its practical use. Primary objective of financial management is to maximize the shareholders' wealth and principally concerns with three major decisions on investment, financing and dividend decisions and interactions between them (Freeman & Hobbes, 2001). The survival of a company depends very much on its ability to generate returns from its investments (Ryan & Ryan et al., 2002) and it deserves organizational operations. The capital budgeting theory lies within the concept of shareholders' wealth maximization and involves investment decisions in which expenditures and receipts continue over a significant period of time (Fabozzi & Dayananda et al., 2002).

Sound financial management and capital investment decision making are critical to survival and long-term success for firms. The global financial crisis has only affirmed this truth. This paper contributes to understanding the role of accounting in business decisions by demonstrating the need for more sophistication in firms' analysis of investment choices and provides sound advice for practitioners, in order that incorrect decision making and underinvestment can be minimized. This research investigated current capital budgeting practices of large firms in Canada, which appears to have received relatively less attention in the literature than other countries in recent times regarding use of DCF. DCF has become the dominant evaluation method UK (Arnold & Hatzopoulos, 2000) and the USA (Farragher et al., 2002).

Capital budgeting is the process of analyzing investment opportunities in long-term assets which are expected to produce benefits for more than one year (Peterson & Fabozzi,

2002). A central feature of any investment analysis is DCF, which takes into consideration the time value of money, is regarded as theoretically correct, and includes at least four different discounting models: NPV, IRR, modified internal rate of return (MIRR), and profitability index (PI) (Brigham and Ehrhardt, 2002). Both NPV and IRR are consistent with the goal of maximizing a firm's value, use cash flows and consider cash flow timing. With NPV, the present value of future cash flows is generated and when compared with initial outflows, an investment project is seen as acceptable whenever a positive NPV is the outcome. IRR is a percentage rate that equates the present value of future cash inflows with the present value of its investment outlay.

Finance theory asserts that NPV is the best method for evaluating capital investment projects. In a normal project, cash outflows are followed by annual cash inflows and under these circumstances, NPV and IRR lead to the same investment decisions. Problems with the IRR technique occur in two cases and may lead to incorrect capital budgeting decisions. When project cash flows are abnormal this may lead to multiple IRR calculations, affecting both independent and mutually exclusive projects. When investment projects are mutually exclusive, scale and time differences may lead to incorrect investment decisions and this is a problem associated with their investment rate assumption (Brigham and Ehrhardt, 2002).

Investment decisions are growing" (Kersyte, 2011). Making a good investment decision is of important since available funds are scarce and interdependency of organizational long-term survival, success and growth; in turn it boosts the value of the organization (Bennouna et al., 2010). Thus, Elumilade et al. (2006) explained that capital investment decision is one of the fundamental requirements; it should be properly applied to make trade-offs between expected return and riskiness that route to the effective firm performance which accelerate the economic development of a country. Many changes involve capital investment decisions, which can invariably involve large sums of money over the long period. "Capital investment decisions are critical in managing strategic change and sustaining long term corporate performance" (Emmanuel et al., 2010).

Capital budgeting decision has become one of the fundamental criteria for a company planning to assume an investment. It is one of the most important decisions that face the financial managers today; these decisions shape the future of the company. The process of capital budgeting should be done taking into consideration the firm's strategic plan. Typical projects include the acquisition of plant and equipment, a marketing campaign, developing a new business or product (Correia et al., 2007). These projects are expected to produce future benefits to the organization. Capital budgeting, sometimes called capital investment analysis refers to the process of determining which investment projects result in maximization of shareholder value (Hermes et al., 2007).

According to Dayananda et al., (2002), the risk involved in capital budgeting calls for the involvement of all the functional areas of the business to participate in the decision making such as production, marketing, data processing and human resources department. Although managers from different departments have to be involved in the process, the overall control rests with the Chief Financial Officer (CFO) or any other person responsible for capital budgeting since they have got the technical knowledge. The selection of potential investment is done using several techniques which have been designed by many researchers. The methods aid in the calculation of the expected return from a promising investment project. Some of these techniques are theoretically superior to others, but each has its own advantages and disadvantages. The following techniques can be used: the Net Present Value (NPV), the Payback Period (PB), Accounting Rate of Return (ARR), Internal Rate of Return (IRR), Profitability Index (PI), Discounted Payback Period (DPB) and Real Option.

Companies might use different techniques for different projects. For example a company might use the payback method for small projects while for large projects they might use NPV which can show the profitability of the project (Ross, 2006). The common of capital budgeting decisions require large amount of cash investment and therefore a firm needs to make sure it is making the right decision. This is especially true since capital budgeting decisions entail a long term commitment to the project with strategic implication to the firm. Furthermore, external funds may be raised through financing via borrowing or raising new capital which involves returns to the providers of funds. Therefore, firms need to evaluate carefully whether it is a right move to raise external capital to invest. Capital budgeting decision which involves binding scarce resources for a long period of time needs to be evaluated carefully to ensure maximum profitability. Capital budgeting is very Importance for Merchandise companies in Mogadishu according to Drury (2004), it enables firms to determine which projects they should accept and companies are also able to determine the total amount of capital expenditure which the firm should undertake. Capital budgeting decisions impact the firm for several years, it is important that they should be carefully planned. This shows that great care needs to be taken when evaluating projects and merchandise companies should pump out their duties on those projects which will maximize shareholder value.

Company sizes, degree of risk and capital intensity have significant and positive effect on capital budgeting decision. Capital budgeting decision rank among the most critical types of managerial decisions made in a company and can have major long-term implications, both positive and negative. For the success of a company, managers must understand how Capital budgeting decision are made if they are to participate in improving corporate performance. Financial methods used to evaluate capital budgeting can be broadly categorized as non-discounting models and discounting models. Many studies (Cooper et al. and Ryan & Ryan, 2002) have been carried out to find out whether discounting models have been accepted more over the years compared to non-discounting models. Limited studies have also been carried out to identify the dominant financial technique for a specific type of investment decisions Klammer et al., (2011).

Financial decision makers know well what are the capital budgeting techniques available for evaluating investment projects in general? Merchandise companies will only succeed if their capital budgeting decisions are made well In order to ensure the importance of capital budgeting decisions for merchandise companies and its determinants play the effectiveness and efficiency in merchandise companies. It is necessary to consider the problem Statement and Interpretations in to specific meaning from the research to understand and apply the Standards of capital budgeting decisions it is consequence of organizational performance. Therefore, answers should be made to the following fundamental Problem statement.

Firstly, this would compare the determinants of capital budgeting decisions for merchandise companies in Mogadishu.

Secondly, the purpose of this study was to determine the variables that explain the result become negative or positive effect and identify those variables.

Thirdly**,** the most merchandise companies ignore in most cases that the strength of capital budgeting decisions influence the level of success and the effective capital budgeting decisions of its resource. Therefore, this study investigates the determinants of effective capital budgeting decisions on merchandise companies in Mogadishu.

Research Objectives

This study was guided by the following specific objectives:-

1. To determine the effects of company size on capital budgeting decision for merchandise companies in Mogadishu, Somalia.
2. To evaluate the influence of degree of risk on capital budgeting decision for merchandise companies in Mogadishu, Somalia.
3. To analyze the effects of Capital Intensity on capital budgeting decision for merchandise companies in Mogadishu, Somalia.

2. Related Litereture

Theoretical Framework

The following section presents the related theories of capital budgeting decision. This study is anchored on three major theories namely, Efficient Market Hypothesis Theory, Capital Asset Pricing theory and Arbitrage Pricing theory.

Efficient Market Hypothesis Theory

The concept of market efficiency was proposed by Eugene Fama in 1965. Market efficiency means that the price which investor is paying for financial asset (stock, bond, other security) fully reflects fair or true information about the intrinsic value of this specific asset or fairly describes the value of the company – the issuer of this security. The key term in the concept of the market efficiency is the information available for investors trading in the market (Levišauskaite, 2010).In his original article, Fama divided the efficient market hypothesis (EMH) into three sub-hypotheses these include weak-form EMH, semi-strong form EMH, and strong-form EMH (Brown F. K., 2012). The weak form of EMH assumes that current stock prices fully reflect all currently available security market information. It contends that past price and volume data have no relationship with the future direction of security prices. It concludes that excess returns cannot be achieved using technical analysis. The semi-strong form of EMH assumes that current stock prices adjust rapidly to the release of all new public information.

It contends that security prices have factored in available market and non-market public information. It concludes that excess returns cannot be achieved using fundamental analysis. The strong-form EMH contends that stock prices fully reflect all information from public and private sources. This means that no group of investors has monopolistic access to information relevant to the formation of prices. Therefore, this hypothesis contends that no group of investors should be able to consistently derive above-average risk-adjusted rates of return. The strong-form EMH encompasses both the weak-form and the semi-strong form EMH. The following are the main assumptions for a market to be efficient: a large number of investors analyze and value securities for profit, new information comes to the market independent from other news and in a random fashion, stock prices adjust quickly to new information, stock prices should reflect all available information.

Capital Asset Pricing Theory

CAPM was developed by W. F. Sharpe. CAPM simplified Markowitz‘s Modern Portfolio theory, made it more practical. Markowitz showed that for a given level of expected return and for a given feasible set of securities, finding the optimal portfolio with the lowest total risk, measured as standard deviation of portfolio returns, requires knowledge of the correlation between all possible security combinations (Levišauskaite, 2010).The Capital Asset Pricing Model (CAPM) is based on the following assumptions: The CAPM is an abstraction of real world capital markets and, as such, is based on some assumptions. These assumptions simplify matters a great deal, and some of them may even seem unrealistic. However, these assumptions make the CAPM more tractable from a mathematical standpoint. The CAPM assumptions are as follows:

Assumption 1: Investors make investment decisions based on the expected return and variance of returns and subscribe to the Markowitz method of portfolio diversification.

Assumption 2: Investors are rational and risk averse.

Assumption 3: Investors all invest for the same period of time.

Assumption 4: Investors have the same expectations about the expected return and variance of all assets.

Assumption 5: There is a risk-free asset and investors can borrow and lend any amount at the risk-free rate.

Assumption 6: Capital markets are completely competitive and frictionless.

The first four assumptions deal with the way investors make decisions. The last two assumptions relate to characteristics of the capital market. These assumptions require further explanation according to (Drake, 2010). The capital asset pricing model states that the expected risk premium on each investment is proportional to its beta. This means that each investment should lie on the sloping security market line connecting Treasury bills and the market portfolio (Richard A. Brealey, 2011). The capital asset pricing model (CAPM) can be used to determine the appropriate cost of capital. The NPV method uses the cost of capital as the rate to discount future cash flows. The IRR method uses the cost of capital as the cutoff rate. The required rate of return, or cost of capital according to the

CAPM is equal to the risk-free rate of return *(rf)* plus a risk premium equal to the firm’s beta coefficient (b) times the market risk premium *(rm-rf)* (Siegel, 2007).

Arbitrage Pricing Theory

The predetermination of investment returns before venturing into it keeps manufacturing companies on track, in the choice of investment. The Arbitrage theory of capital assets pricing as developed by R.A. Ross in the year 1976 states that, investors always indulge in arbitrage whenever they find differences in the returns of assets with similar risk characteristics (Govindarajan & Anthony, 2004). It is against this background that investment with higher yielding returns is often preferred to that with lower returns when once their risk characteristics are the same. It is against this background that investment with higher yielding returns is often preferred to that with lower returns when once their risk characteristics are the same. It then imply that, though the risk nature of investments make investors differ in their investment decisions, most investors are risk averse. A risk averse investor is that who will choose from investments with equal

rates of returns, that with the lowest standard deviation, or whose risk is lower. The decision to invest is an onerous task because of the uncertainty nature of future events, which is synonymous with every class of investment. The tagged slothful servant may actually be willing to invest, but due to his unwillingness to take risk, he resigned to fate. In essence, the motive to invest depends largely on the risk preference of the investor.

Conceptual Framework

According to Young (2009), conceptual framework is a diagrammatical representation that shows the relationship between dependent variable and independent variables. A conceptual framework shows the relationship between independent and dependent variables.

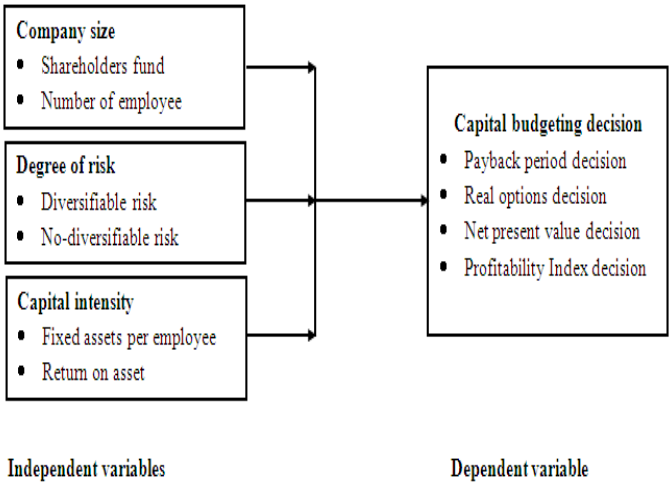

Figure 2.1. Conceptual Framework.

Company size

Different authors have tried to define Company size. Company size can be defined as the total amount of shareholder's funds, number of employees which the companies have, annual turnover and the total fixed assets which the company is in possession of (Harif & Osman 2010; Awomewe & Ogundele 2008). Thus, companies make their decisions based on the different ways of defining size. Theoretically, it is stated that large companies tend to use more sophisticated techniques than small companies (Danielson & Jonathan, 2006). The results of Danielson and Jonathan (2006) suggest that the investment appraisal processes for large and small companies might differ. Precisely, survey results show that small companies make use of DCF analysis less frequently than the gut feel, payback period, and accounting rate of return (Prather et al., 2009). In a study by Graham and Harvey (2001), it was clearly indicated that company size significantly affects the practice of corporate finance. Their study was also supported by (Brounen et al., 2004; Hermes et al., 2007)'s findings who stated that there is some evidence that larger firms are more inclined to use more sophisticated capital budgeting techniques.

Brounen et al., (2004)'s study also shows that smaller firms who are not much more worried about maximizing shareholder value use the payback period when evaluating the viability of their projects. Based on the results of Graham and Harvey (2001), Leon et al., (2008) also did a research expecting to find a positive relationship between firm size and the usage of DCF techniques. This anticipation was based on the supposition that huge firms would be able to afford qualified and knowledgeable managers who use sophisticated management techniques. Surprisingly, the results of Leon et al., (2008) were different from those of Graham and Harvey (2001), they found out that all companies, regardless of their size groups, show a high percentage of the use of DCF techniques. Although one author has mentioned that size does not influence the capital budgeting technique to be used by the company, our hypothesis will be formulated based on the fact that size affect the capital budgeting technique to be used. This is so because the majority of the authors who looked at this indicated that there is a relationship between company size and the capital budgeting technique used.

Degree of risk

The word "risk" is derived from the Italian verb riscare, which means "to dare." Business entities therefore "dare to" generate profits by taking advantage of the opportunistic side of risk (Drake, 2010). Riskiness of a project is defined as the variability of its cash flows from those that are expected (Van Horne & Wachowicz, 2001). The technique can adjust for risk if the project's level of risk is incorporated into the capital budgeting process. In this case, the discount rate will be adjusted either upward or downward depending on the level of risk anticipated (Gibson, 2009). If the risk associated with the project is greater, the discount rate is adjusted upward to compensate for this added risk and downward to adjust for lower risk (Van Horne & Wachowicz, 2001). The technique can adjust for risk if the project's level of risk is incorporated into the capital budgeting process.

In this case, the discount rate will be adjusted either upward or downward depending on the level of risk anticipated (Gibson, 2009). If the risk associated with the project is greater, the discount rate is adjusted upward to compensate for this added risk and downward to adjust for lower risk (Van Horne & Wachowicz, 2001). Therefore high risk requires high return and vise verse is true. Following the reasoning of the investment theory, that only the systematic element of risk is compensated by a higher return, a measure of systematic risk should be used. CAPM uses beta as a measure of systematic risk. A security risk consists of two components—diversifiable risk and no-diversifiable risk. Diversifiable risk, sometimes called controllable risk or unsystematic risk, represents the portion of a security's risk that can be controlled through diversification.

This type of risk is unique to a given security. Business, liquidity, and default risks fall into this category. No-diversifiable risk sometimes referred to as no-controllable risk or systematic risk, results from forces outside of the firm's control and is therefore not unique to the given security. Purchasing power, interest rate, and market risks fall into this category. No-diversifiable risk is assessed relative to the risk of a diversified portfolio of securities, or the market portfolio. This type of risk is measured by the beta coefficient. The capital asset pricing model (CAPM) relates the risk measured by beta to the level of expected or required rate of return on a security. The model, also called the security market line (SML) according to (Siegel, 2007).

Capital intensity

The relationship between capital intensity and performance is not straightforwardly defined, various counteracting factors are at work making the net effect difficult to predict. Empirical evidence provides some indications that capital intensity might be positively related to performance on an industry level and negatively on the firm level. In our model we will use net fixed assets per employee as a proxy for capital intensity. A similar measure is employed Farragher et al (2001) and the results obtained are consistent with the empirical results in other studies. When performance

is defined in terms of ORR (Operating Rate of Return), a certain relationship might exist between capital intensity and performance solely due to the formulation of the proxies if capital intensity is also defined in terms of assets (e.g., net fixed assets per employee). This means that any return on asset based performance measure is more likely to produce a negative relationship between the two variables due to a larger denominator in the performance formula for capital-intensive firms.

Meanwhile, if ROE or another non-asset based performance measure is used the nature of the relationship between the two variables is more difficult to define. This fact will be kept in mind when constructing a regression model with operating rate of return and stock price changes as performance measures. Capital consists of assets, monetary and non monetary, contributed by owners of a corporate organization to keep a business afloat. Association of Certificated and Chartered Accountants (1998) defined capital as the monetary and non-monetary assets contributed by owners of an enterprise (equity capital), and by the creditors (loan capital) to get the organization going. It refers to the right of an enterprise to utilize the services of produced factor inputs. In other words, capital (money) is held because transactions take place at discrete time intervals. However, the right of a company to utilize the services of produced factor inputs (capital) is a function of the total value of real and financial assets available to it (Govidarajan and Anthony, 2004). This right can be exercised either in the ownership and control of real assets, or in that of financial assets. According to Pandy (2006), real assets are tangible assets, while financial assets are claims on income to be generated by real assets. Pandy further stated that, the total value of real and financial assets available to an economic unit at any point in time constitutes its stock of capital, otherwise referred to as, the wealth of that economic unit.

Capital Budgeting Decision

Capital budgeting techniques can be divided into two categories. These are the discounted cash flow techniques (DCF) and the non-discounted cash flow techniques (NDCF). According to Garrison and Noreen (2000), the DCF techniques are those which recognize the time value of money. Non - Discounted Cash Flow techniques ignores time value of money.

1. Payback period (PB)

The Payback period is defined as the period necessary for the working cash surpluses created by a certain investment to equate, in total, to the capital sum initially invested (Maheshwari 2009). This method evaluates the earnings per year from the beginning of the project until the accrued incomes are equivalent to the cost of the asset, at which time the outlay is said to have been paid back (Awomewe & Ogundele 2008). The payback decision rule states that, projects with a payback of less than some determined cutoff period are undertaken and those with prolonged paybacks are rejected (Shapiro & Balbirea 2000; Yard 2000).

2. Accounting Rate of Return (ARR)

This can also be referred to as the average accounting return method. It is defined as the average project income after deducting taxes and depreciation divided by the average book value of the investment during its life time (Davies & Boczko 2005; Elumilade et al., 2006; Ross et al., 2009). In a book written by Davies and Boczko (2005), it is shown that ARR can also be calculated by using total profits instead of average profits and then divide by the average investment.

3. The real options approach

"Real Option is the right but not the obligation to make future decisions that affect a project's expected cash flows, life, or future acceptance; typically the option to make, abandon, expand, or contract a capital investment" (James C. Van Horne & John M. Wachowicz, 2012). Many academies and practitioners have mentioned some problems with using the NPV for making capital budgeting decisions, the fact is, NPV and all other capital budgeting methods ignores the changes that management can make after the project has been accepted (Alkaraan & Northcott 2006 ; Ross et al., 2009)

Discounted Cash Flow techniques

4. Net present value (NPV)

The NPV is described as the difference between the present value of the cash inflows and the present value of the cash outflows (Awomewe & Ogundele 2008). The evaluation of the NPV of a project must encompass measuring the project's future net cash flows, discounting these at the suitable cost of capital to obtain their present value, deducting the initial capital cost or net investment outlay, at the project commencement period (Elumilade et al., 2006).

5. Profitability Index (PI)

The Profitability Index (PI) also known as the "Benefits-Cost Ratio" is the ratio of the present value of future cash flows to the actual cash outflow (Elumilade et al., 2006; Van Horne & Wachowicz 2001). It is an additional method available which can help managers or decision makers in selecting the best project among several options (Elumilade et al. 2006). The PI method has been seen to have the following attributes: simple to understand, measures profitability, can adjust for risk, considers all cash flows, adjusts for time value of money and assumes realistic reinvestment of intermediate cash inflow (Bhandari, 2009). The project is accepted if the profitability index is 1or greater, this shows that the project's present worth is higher than the actual cash outflow which in turn implies that the net present value is greater than zero (Van Horne &Wachowicz, 2001).

6. Internal rate of return (IRR)

This is the discount rate at which the present value of expected capital investment outlays is exactly equal to the current value of anticipated cash earnings on that capital project (Awomewe & Ogundele 2008; Elumilade et al., 2006; Kunsch 2008; Soni 2006). The study by Awomewe and Ogundele (2008) brought to light that IRR can also be referred to as the economic rate of return (ERR). This has also been defined by Soni (2006), as the rate at which the net present value of a project equals zero. This denotes that the IRR is the breakeven point of cost of capital and therefore a measure of investment liability with regard to the rate of return instead of value (Elumilade et al., 2006). IRR rule is straightforward and gives a valuable understanding to decision-makers about appropriate evaluation of expected rate of return per unit of time throughout the investment process (Drury 2004; Elumilade et al., 2006). The study by Graham and Harvey (2001) has shown that IRR is the primary method mostly used by large firms. The study by Bhandari (2009) has shown that IRR is favored because of the following qualities: it is simple to understand, measures profitability, can adjust for risk, considers all cash flows and adjusts for time value of money.

7. Discounted Payback Period (DPP)

Bhandari (2009) defines DPP as the period in which the accumulative net present value of a project's cash flows is equivalent to zero. This method is preferred in circumstances where the life span of a project is not clear due to some

changes in consumer tastes, competing products and regulatory environment than other discounted cash flow techniques such as the NPV, IRR and PI (Bhandari 2009). A project is acceptable if DPP is less than its economic life or some fixed period. Discounted payback period has got some characteristics which are the same as for the traditional payback and has got some connections with NPV, the IRR and the PI criteria (Bhandari, 2009). Also, in Bhandari's study it has been shown that DPP has some qualities which make it to be a better technique to use in the evaluation of projects. These qualities are: it is simple to understand, measures profitability, ensures liquidity, can adjust for risk, adjusts for time value of money, consistent with the wealth maximization goal and assumes realistic reinvestment of intermediate cash inflow.

Empirical Literature

Few empirical studies have been conducted in the area of the present study. Empirical evidence provides some indications that capital intensity might be positively related to performance on an industry level and negatively on the firm level. In our model we will use net fixed assets per employee as a proxy for capital intensity. A similar measure is employed Farragher et al (2001) and the results obtained are consistent with the empirical results in other studies. We expect company size to be related to the use of recommended capital budgeting methods (Verbeeten, 2006; Graham and Harvey, 2001; Brounen et al., 2003; Sandahl and Sjögren, 2003) because large companies tend to deal with larger projects, making the use of more sophisticated methods less costly (Hermes et al., 2007). We expect growth companies to use two recommended methods more frequently. First, finance textbooks teach that IRR should not be used to rate mutually exclusive projects, which growth companies might have more than mature companies.

Growth companies might also be more likely to calculate the profitability index and net present value. We expect companies with greater management ownership to use recommended methods more often. Ownership structure can have an impact on managerial decisions and company performance and companies with greater managerial ownership have been found to be less likely to experience financial distress (Donker et al., 2009), perhaps because managers then have more to lose if the company goes bankrupt. Management ownership may thus reduce management opportunism and increase use of recommended capital budgeting methods. Managers can thus take either accounting actions or real actions to manage earnings or other accounting figures (Dechow and Skinner, 2000). Managers focused on meeting accounting figures might reject a profitable investment (with positive NPV) if the calculated accounting rate of return is too low. Graham et al. (2005) showed that top management was willing to sacrifice long-term value just to meet accounting targets.

We believe that this focus on accounting numbers is more profound in companies with low levels of management ownership, and we therefore expect that management owned companies use ARR less frequent. We expect more educated and younger CEOs to use recommended methods (Hermes et al., 2007), with which they might be more familiar and to which they might be more open. We also expect new CEOs to use more "socially acceptable" (often recommended methods), whereas CEOs with more company-specific experience might be more relaxed and choose simpler methods, perhaps viewing them as "good enough". But more experienced CEOs might choose more recommended methods if taught their value by experience. There might also be industry-specific differences when it comes to the use of methods. We expect merchandising companies to use more recommended methods because they are often larger, more capital intensive with higher sunk costs. We expect that companies with a higher dividend payout ratio use profitability index calculations methods less often because (apart from expectations about future positive cash flows and profits) a higher dividend payout indicates that the company is liquid, making capital rationing less likely.

Finally, we expect more use of recommended methods in 2008 than in 2005, because the use of capital budgeting methods has become more sophisticated over time (Ryan and Ryan, 2002; Sandahl and Sjögren, 2003; Bennouna et al., 2010). According to a field experience, project abandonment among merchandise companies may be due to lack of funds, strict economic policies, unethical practices, high transaction cost, project inexperience, and wrong choice of capital projects (Bolarinwa, 2013). Fuss and Vermeulen (2004) grouped these factors as demand and price uncertainty. They noted that these uncertainties require a firm to shift planned and realized decisions on capital investment. Fuss and Vermeulen (2004) explained that 'uncertainty increases the value of the waiting option thereby making it more optimal to postpone investment'. This practice at end may lead to outright project abandonment in firms especially among enterprises where the capital size is low or medium. From our study, merchandise companies are uncertain about the continuous funding of their capital projects and business environment. Our study focuses on the literatures of Fuss and Vermeulen (2007) and Bolarinwa (2013) as they explore the qualitative factors affecting capital investments leading to abandonment and affecting merchandise companies survival. Our definition of abandonment recognizes that it is the state of failure to continue investments which results from both quantitative and qualitative measures.

3. Methodology

This study was conducted through a descriptive study .The target population of this study comprised of accountant, owner and investor of four industries of merchandising companies in Mogadishu which are food-stuff companies, Electronic companies, Pharmaceutical companies and construction material companies in Bakara Market.

The study used the following regression model: $Y=\beta0+\beta1x1+ \beta2x2+ \beta3x3 + \epsilon$

Where:-

Y = represents the dependent variable, Capital Budgeting Decision

β0… β3 are the Regression Coefficient

X1 = Company size

X2 = Degree of risk

X3 = Capital intensity

ϵ = Error term

4. Research Findings

Effect of company size on capital budgeting decision

The study required to investigate the effects of company size on capital budgeting decision. Table 4.7 summarizes respondents' level of agreement on how company size affects capital budgeting decision. Most of the respondents agreed that the Investment Appraisal processes for large and small companies might differ as shown by a mean of 2.47. Also most of the respondents agreed to the fact that Company size significantly affects the capital budgeting technique to be

used, reporting a mean of 2.56. The shareholders are more interested in the profitability and the growth of the company reported a mean of 2.64. The results of Danielson and Jonathan (2006) suggest that the investment appraisal processes for large and small firms might differ. Precisely, survey results show that small companies make use of DCF analysis less frequently than the gut feel, payback period, and accounting rate of return (Prather et al., 2009). In a study by Graham and Harvey (2001), it was clearly indicated that firm size significantly affects the practice of corporate finance.

Table 4.7. Company size on capital budgeting decision.

Statement	n	Mean	S.D
The capital budgeting decision is influenced by the size of the company.	45	2.80	1.408
Investment Appraisal processes for large and small companies might differ.	45	2.47	1.290
Company size is effect by shareholder's funds and number of employees which the companies have.	45	2.98	1.438
Company size significantly affects the capital budgeting technique to be used.	45	2.56	1.341
The shareholders are more interested in the profitability and the growth of the company	45	2.64	1.401

Degree of risk on capital budgeting decision

The study sought to establish the effects of degree of risk on capital budgeting decision. From the findings indicated in table 4.7 most of the respondents agreed that the Some companies are not risk taker because they are risk averse with a mean of 2.42 being obtained. The results also conquer with the findings on the question that was asked whether the Business entities generate profits by taking advantage of the opportunistic side of risk. The findings on this question obtained a mean of 2.47. If the risk associated with the project is greater, the discount rate is adjusted upward to compensate for this added risk and downward to adjust for lower risk (Van Horne & Wachowicz, 2001). The technique can adjust for risk if the project's level of risk is incorporated into the capital budgeting process. The findings on use of uncertainty and the risk averse always reduce the level of profit obtain a mean of 2.51 and 2.60 respectively.

Table 4.8. Degree of risk on capital budgeting decision.

Statement	n	Mean	S.D
High risk requires high return and vise verse is true.	45	2.73	1.321
Lack of understanding of the risk measurement devices	45	2.60	1.372
Both risk and uncertainty always reduce the level of profit that company earned.	45	2.51	1.290
Business entities generate profits by taking advantage of the opportunistic side of risk.	45	2.47	1.254
Some companies are not risk taker because they are risk averse	45	2.42	1.438

Effect of capital intensity on capital budgeting decision

The study sought to establish the effects of capital intensity on capital budgeting decision. Respondents agreed that the Finance officers and owners take decisions related earlier experience when investing new project as represented by a mean of 2.38, most of the respondents agreed that an investment does not affect the profitability and long-term strategy of the organization as showed by a mean of 2.53 and a mean 2.73 were obtained on the question whether Firms have a policy towards investment or financing decision. The findings of these studies are uncertain, since the relationship between capital intensity and capital budgeting decision is found to be significantly positive (Farragher et al, 2001). This reasoning suggests a positive relationship between capital budgeting decision and capital intensity, i.e., a more capital-intensive firm is more likely to adopt and use more sophisticated capital budgeting techniques.

Table 4.9. Capital intensity on capital budgeting decision.

Statement	n	Mean	S.D
An investment does not affect the profitability and long-term strategy of the organization.	45	2.53	1.471
The ability of profit levels of the firms have increased over the last years.	45	2.82	1.482
Performance is measured by return on equity (ROE) and ROA of the company.	45	2.82	1.386
Firms have a policy towards investment or financing decision.	45	2.73	1.468
Finance officers and owners take decisions related earlier experience when investing new project.	45	2.38	1.319

Capital budgeting decision

A number of questions were asked to determine how capital budgeting decision was conducted in the merchandise companies in Mogadishu, Somalia. Respondents agreed that allowing how financial managers upper hand in taking capital expenditure decisions obtaining a mean of 2.89. The respondent agreed that the payback period indicates how quickly the cost of investment will be recovered but does not measure its Profitability obtaining a mean of 2.82 and similarly a mean of 2.78 terms of management's over reliance on the capital budgeting instrument as developed were respondent agreed. These findings are in agreement with the literature review findings that indicate that Capital budgeting techniques can be divided into two categories. These are the discounted cash flow techniques (DCF) and the non-discounted cash flow techniques (NDCF). According to Garrison and Noreen (2000), the DCF techniques are those which recognize the time value of money. Non - Discounted Cash Flow techniques ignores time value of money.

Table 4.10. Capital budgeting decision.

Statement	N	Mean	S. D
The payback period indicates how quickly the cost of investment will be recovered but does not measure its Profitability	45	2.82	1.35
Merchandising companies are more interested in projects with more to degree of risk and also access to liquidity.	45	3.22	1.29
A decision maker has greater flexibility and improved method to value opportunities.	45	3.40	1.35
Management's over reliance on the capital budgeting instrument as developed.	45	2.78	1.38
Allowing financial managers upper hand in taking capital expenditure decisions.	45	2.89	1.33

Multiple Regression Analysis

Multiple regression analysis was performed to evaluate the relationship between the dependent variable (capital budgeting decision) and the independent variables (company size, degree of risk and capital intensity) and to test the research on the determinants of capital budgeting decisions for merchandise companies in Mogadishu, Somalia. While stepwise multiple regression analysis was conducted in order to establish the best combination of independent (predictor) variables would be to predict the dependent (predicted) variable and to establish the best model of the study (Cooper & Schindler, 2013). In this study, a multiple regression analysis was conducted to test the determinants of capital budgeting decisions for merchandise companies in Mogadishu, Somalia. The research used statistical package for

social sciences (SPSS V 20) to code, enter and compute the measurements of the multiple regressions.

Model Summary

Model summary is a summery that describes how far the independent variables explain the dependent variables that mean the greater R value has the great number the greater independent variables explain with dependent variable. In order to test the research, a standard multiple regression analysis was conducted using capital budgeting decision as the dependent variable, and the three determinants of capital budgeting decision: company size, degree of risk and capital intensity as the predicting variables. Tables 4.11, 4.12 and 4.13 present the regression results. From the model summary in table 4.10, it is clear that the adjusted R2 was 0.482 indicating that a combination of company size, degree of risk and capital intensity explained 48.2% of the variation in the capital budgeting decisions for merchandise companies in Mogadishu, Somalia.

Table 4.11. Model Summary.

Model	R	R2	Adjusted R2
1	. 720	.518	.482

Analysis of Variance

Analysis of Variance (ANOVA), as the name implies, is a statistical technique that is intended to analyze variability in data in order to infer the inequality among population means. This may sound illogical, but there is more to this idea than just what the name implies. The ANOVA technique extends what an independent-samples t test can do to multiple means. The null hypothesis examined by the independent samples t test is that two population means are equal. If more than two means are compared, repeated use of the independent-samples t test will lead to a higher Type I error rate (the experiment-wise α level) than the α level set for each t test.

Table 4.12. Analysis of Variance.

ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.926	3	2.309	14.670	.000
Residual	6.452	41	.157		
Total	13.378	44			

From the ANOVA table 4.12, it is clear that the overall standard multiple regression model (the model involving constant, company size, degree of risk and capital intensity) is significant in predicting how company size, degree of risk and capital intensity determine capital budgeting decision for merchandise companies in Mogadishu, Somalia. The regression model achieves a high degree of fit as reflected by an R2 of .518 ($F = 14.670$; $P = 0.00 < 0.05$).

Regression Coefficients

Table 4.13 presents the regression results on how company size, degree of risk and capital intensity determine capital budgeting decision for merchandise companies in Mogadishu, Somalia. The multiple regression equation was that: $Y=\beta0+\beta1X1+\beta2X2+\beta3X3+\varepsilon$ and the multiple regression equation became: $Y = .592+.265X1+.325X2+.335X3$. As depicted in table 4.13, there was positive and significant effects of Capital intensity on capital budgeting decision ($\beta = .381$; $t = 3.096$; $p < 0.05$). There was positive and significant effects of Degree of risk on capital budgeting decision ($\beta = .306$; $t = 2.559$; $p < 0.05$). However, also there was positive and significant effects of company size on capital budgeting decision ($\beta = .252$; $t = 2.069$; $p > 0.05$).

Table 4.13. Regression Coefficients.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.592	.383		1.545	.130
Company size	.265	.128	.252	2.069	.045
Degree of risk	.325	.127	.306	2.559	.014
Capital intensity	.335	.108	.381	3.096	.004

a. Dependent variable: Capital budgeting decision

Correlation Analysis

Pearson Bivariate correlation coefficient was used to compute the correlation between the dependent variable (capital budgeting decision) and the independent variables (company size, degree of risk and capital intensity). According to Sekaran (2008), this relationship is assumed to be linear and the correlation coefficient ranges from -1.0 (perfect negative correlation) to +1.0 (perfect positive relationship). The correlation coefficient was calculated to determine the strength of the relationship between dependent and independent variables (Kothari, 2013). From table 4.14, the results generally indicate that independent variables (degree of risk, company size, and capital intensity) were found to have positive significant correlations on capital budgeting decision at 5% level of significance. There was a strong positive and highly significant correlation between company size and capital budgeting decision ($r = .510$, $P > 0.05$). There was a strong positive and highly significant correlation between degree of risk and capital budgeting decision ($r = .531$, $P < 0.05$). There was a strong positive and highly significant correlation between capital intensity and capital budgeting decision ($r = .595$, $P < 0.01$). The results imply that company size, degree of risk and capital intensity significantly influenced capital budgeting decision for merchandise companies in Mogadishu, Somalia.

Table 4.14. Correlation.

		Company size	Degree frisk	Capital intensity	Capital budgeting
Company size	Pearson Correlation	1	.339*	.405**	.510**
	Sig. (2-tailed)		.023	.006	.000
	N	45	45	45	45
Degree frisk	Pearson Correlation	.339*	1	.367*	.531**
	Sig. (2-tailed)	.023		.013	.000
	N	45	45	45	45
Capital intensity	Pearson Correlation	.405**	.367*	1	.595**
	Sig. (2-tailed)	.006	.013		.000
	N	45	45	45	45
Capital budgeting	Pearson Correlation	.510**	.531**	.595**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	45	45	45	45

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

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

5. Summary of Findings

The general objective of this study was to investigate the determinants of capital budgeting decisions for merchandise companies in Mogadishu, Somalia. Specifically; this study investigated the effects of company size, degree of risk and capital intensity on capital budgeting decisions for merchandise companies in Mogadishu, Somalia. The study

employed a survey research design in data collection. This research employed quantitative data collection method whereby data was gathered by the use of closed ended questionnaires which were self-administered. Factor analysis was used to assess the validity and Cronbach alpha to assess reliability of the questionnaire. Multiple regression analysis was performed to assess the relationship between the dependent variable (capital budgeting decisions) and the independent variables (company size, degree of risk and capital intensity) and to test the research on the determinants of capital budgeting decisions for merchandise companies in Mogadishu with specific focus on the merchandise companies in Mogadishu, Somalia.

Company size

Different authors have tried to define Company size. Company size can be defined as the total amount of shareholder's funds, number of employees which the companies have, annual turnover and the total fixed assets which the company is in possession of (Harif & Osman 2010; Awomewe & Ogundele 2008). Thus, companies make their decisions based on the different ways of defining size. The capital budgeting decision of the organization was influenced by the size of the company as the results of Danielson and Jonathan (2006) suggest that the investment appraisal processes for large and small firms might differ. Precisely, survey results show that small companies make use of DCF analysis less frequently than the gut feel, payback period, and accounting rate of return (Prather et al., 2009). In a study by Graham and Harvey (2001), it was clearly indicated that firm size significantly affects the practice of corporate finance.

Degree of risk

Business entities therefore generate profits by taking advantage of the opportunistic side of risk (Drake, 2010). Riskiness of a project is defined as the variability of its cash flows from those that are expected (Van Horne & Wachowicz, 2001). The capital budgeting decision of the organization was influenced by the degree of risk In this case, the discount rate will be adjusted either upward or downward depending on the level of risk anticipated (Gibson, 2009). If the risk associated with the project is greater, the discount rate is adjusted upward to compensate for this added risk and downward to adjust for lower risk (Van Horne & Wachowicz, 2001).

Capital intensity

Capital intensity can be defined as a ratio of net fixed assets per employee (Farragher et al, 2001). The findings of these studies are uncertain, since the relationship between capital intensity and capital budgeting decision is found to be significantly positive (Farragher et al, 2001). This reasoning suggests a positive relationship between capital budgeting decision and capital intensity, i.e., a more capital-intensive firm is more likely to adopt and use more sophisticated capital budgeting techniques.

6. Conclusions

Capital budgeting decision has a strong positive and highly significant correlation on company size, degree of risk and capital intensity. Capital budgeting has been seen as an important decision made by managers with the aim of maximizing shareholder value. In order to accomplish this objective, managers are supposed to use suitable techniques when evaluating their projects in order for them to be able to come out with sound decisions. The techniques available to managers found in literature are: Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period (PB), Discounted Payback Period (DPB), Profitability Index (PI) and Accounting Rate of Return (ARR). These can be used in helping managers in making decisions on project to undertake. Although all these techniques can be used to evaluate the viability of projects, the information from the literature study has highlighted that these techniques have their own strength and weaknesses which management have to take into consideration when planning to use a certain technique. The real option has only been mentioned to be a tool used by the managers to make a decision on whether to abandon or continue with the project. Based on the findings of this study, the following conclusions were drawn. The results reveal that degree of risk and capital intensity have significant and positive effects on capital budgeting decision, while company size have insignificant effects on capital budgeting decision for merchandise companies in Mogadishu with specific focus on the merchandise companies in Mogadishu, Somalia.

7. Recommendations

Based on the major findings of this study, the following recommendations were made:

1) Managers should make use of the DPB on all the projects when the economic situation is not certain.
2) The NPV technique should be used in all large which involve large sums of money because of its superiority.
3) Financial managers should make use of methods such as the Real Option to assess the viability of the projects which are already running so as to reduce the risk of continuing with a project which is no longer profitable.
4) ARR and PB can be used in projects where the company is not worried about the profitability of the project.
5) Overall, the use of NPV, DPB and PI should be more frequent as these techniques have been proved to be the best.

8. Areas for Further Research

The general objective of this study was to investigate the determinants of capital budgeting decisions for merchandise companies in Mogadishu, Somalia. Specifically; this study investigated the effects of company size, degree of risk and capital intensity on capital budgeting decisions for merchandise companies in Mogadishu, Somalia.

However, further research is required to investigate the reasons behind the unpopularity of other techniques such as the DPB, PI, Real option and ARR. Also, further studies need to be carried out to identify industry based challenges that these industrial merchandising companies firms face and how best these challenges can be deal with to enhance growth and performance of the merchandising sector.

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