AN EMPERICAL INVESTIGATION OF THE RELATIONSHIP BETWEEN DIVIDEND CHANGES AND EARNINGS, CASHFLOWS AND CAPITAL STRUCTURE FOR FIRMS LISTED IN THE NAIROBI STOCK EXCHANGE

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DECLARATION

This management research project is my original work and has not been presented for a degree in any other university.

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This management research project has been submitted for examination with my approval as the university supervisor or the above named candidate

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DEDICATION

This project is dedicated in all sincerity and due respect to my friends and parents for the psychological and spiritual support that largely contributed to the successful conduct of this study to completion. To the almighty God for the sufficient grace and blessings that has seen me through this program.

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ABSTRACT

Dividends are very important considerations for any individual seriously considering investing in a company. Generally dividends are the payments of all or part of a firms net earnings to the shareholders. On the other hand capital gains appear in the form of appreciation of the market value of affirms share. Dividend policy determines the extent of internal financing by a firm. The finance manager decides whether to release corporate earnings from the control of the enterprise.

This study was carried out with the aim of examining the presence and strength of the relationship between dividends changes with variables such as earnings, cash flows and capital structure (leverage) among firms listed in the Nairobi Stock Exchange (NSE).

A sample of 43 Firms was used to bring out the relationship between dividends and certain variables namely earnings cash flows and capital structure or leverage. Spss software was used to analyze data. A regression of dividends against the three variables indicates that earnings was the most important variable among the studied variables

By looking at the simple regression models it was found out that the relationship between DPS and EPS was a strong and positive in nature with a correlation coefficient of 85.7%.The relationship between DPS and Cash Flows was significant with a correlation coefficient of 25.3% which is positive but weak in nature. The relationship between DPS and Debt to Equity ratio to represent capital structure had a coefficient of -4.0% which is a weak and negative correlation which shows that the direction of the relationship is inverse that is the more the dividends paid the lesser the amount of debt to equity ratio and vice versa for lesser dividends.

Out of the firms listed at the NSE about 23.2% have high debt to equity ratio indicating that they apply more debt that the equity amount they have on their capital structure

We can therefore conclude also that dividend change is most sensitive to Earnings, then cash flows from operating from operating activities and finally to debt in that order. Those firms with high debt to equity ratios pay low amounts of dividends with an exceptional of about 5% who pay a high amount. About 58% of firms studied had a high Eps and a high Dps showing the presence of a strong relationship between the said variables.

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CHAPTER ONE: INTRODUCTION

1.1 Background of study

Individuals invest in firms mainly because they expect some returns. The returns to the investor are either dividends or capital gains. Generally dividends are the payments of all or part of a firms net earnings to the shareholders. On the other hand capital gains appear in the form of appreciation of the market value of affirms share.

A firm's management must decide how the firm's earnings are to be distributed. The firm has the choice of either retaining the earnings to finance future investments or distributing the earnings to the shareholders. Poor earnings performance in this case is an annual loss or declining profits.

Where as dividends are mostly distributions in the form of cash, they could also be distributed in other forms. These include; distribution of a firms non cash assets (e.g. stock), promise to pay script dividends, allocating additional shares to the share holders chargeable to a firms retained earnings account (stock dividends/ bonus shares) or liquidating dividends which are charged against a firms share capital account. Capital structure here refers to the mix of debt and equity, which a firm employs in raising corporate finance. Benito and Young (2001) also describe that higher leverage is associated with dividend reduction and omission.

Dividend policy determines the extent of internal financing by a firm. The finance manager decides whether to release corporate earnings from the control of the enterprise. Because dividend policy may affect such areas as the financial structure, the flow of liquid funds, corporate liquidity, stock prices and investor satisfaction. It is clearly an important aspect of financial management (Weston and Brigham 1981).

The *primary puzzle* is the motivation for firms to pay out a significant percentage of their profits in the form of regular cash dividends and the motivation to share holders who are in high tax brackets to hold these dividends paying stocks, (Allen and Michaely, 1995), black (1976).

Earnings persistence as a determinant of dividend changes is also emphasized by Marsh and Merton (1987), who reports evidence that aggregate dividends reflect the likely persistence of earnings improvements, as measured by the stock market aggregate capitalized value of those improvements.

De Angelo and De Angelo (1990) document a high incidence of dividend reductions by firms with transitory losses, or with low but positive earnings. Litner and Fama and Babiak (1968) emphasize then relevance of current and past earnings, while Miller and Modigliani's (1961) analysis of the information content of dividends suggest that dividend changes also depend on management's expectations of future earnings. According to MM (1961,pp. 430), where a firm has adopted a policy of dividend stabilization with a long established and generally appreciated "target payout ratio, "investors are likely to (and have good reason to) interpret a change in the dividend rate as a change in management's views of future profit prospects for the firm"

A number of theories relating to dividends have emerged. Jensen (1986) argues that enhanced monitoring firms are more likely to pay out their free cash flow. The theories imply a relationship between type of shareholder and amount of earnings attributed as dividends. Linter's (1956) pioneering study of dividend policy finds that a firm's bottom line net income is the key determinant of dividends changes, which in his sample are largely dividend increases since it primarily surveys healthy firms it revealed that "... Net earnings were the predominant elements which determine current changes in dividend..."

Dividend is determined or at least influenced by firm's investment policy and capital structure. Debt financing creates obligations to pay cash in future periods and there by reduces cash flows available for capital expenditures and dividends in those periods. Equity financing in turn diminishes the pro rata share of total cash flows available for dividends and reinvestment.

Two schools of thought have emerged in the course of the dividend controversy. The first school, which is the traditional, which holds that, dividends are relevant in firm's valuation. The second one i.e. classical view holds that, dividends are preferred to capital gains and hence firms which wish to maximize their value to the shareholders should pursue liberal dividend policies, this is because firstly, dividends resolve the uncertainty associated with the capital gains and secondly, dividends convey valuable information to the shareholders about the firms expected earnings prospects. Those who identified themselves with this school include: Lintner (1956), Walter (1956 and 1963), Graham, Dodd and Cottler (1962) among others. These scholars viewed the value of the firm as its future dividends (including liquidating dividends).

The traditional view that dividends are good was most prominent before 1961 when MM wrote a revolutionary paper in which they argue that dividends were irrelevant in firm's valuation. They argue that the value of a firm is only influenced by the rate o return on its investments. The regular payment of dividends may be welcome by investors but it may result in many good investment opportunities being passed up, or the firm may sell securities for dividends. Weston and Brigham (1981) note that a firm may maintain a reasonable stable dividend by using out side financing, including debt to smooth out the differences between the funds needed for investment and the amount of money provided by earnings. The crucial question becomes that of the relative importance of *investment policy* Vs *dividend policy.*

Roni et al, (1995) investigated market reactions to initiations and omissions of cash dividend payments. They found that the magnitude of short run price reactions to omissions were greater than those of initiations. This drift was also more pronounced than that following earnings surprise. Omission announcements were associated with a mean drop of about 7% and initiations with a price rise of over 3%. When we look at the dividend policies of firms in the United States in the last 50 years we observe several interesting patterns. First, dividends tend to lag behind earnings; that is, increases in earnings are followed by increases in dividends, and decreases in earnings sometimes by dividend cuts. Second, dividends are "*sticky*" because firms are typically reluctant to change dividends; in particular, firms avoid cutting dividends even when earnings drop. Third, dividends tend to follow a much smoother path than do earnings. Finally, there are distinct differences in dividend policy over the life cycle of a firm, resulting from changes in growth rates, cash flows, and project availability.

A firm's dividend decision is a critical one which needs careful attention because of its bearing on the value of the firm (Brennan and Thakuv, 1990). A part from financing and investment decisions, a firm's management must decide how the firm's earnings are to be distributed. It has the choice of either retaining earnings to finance future investments, distributing the earnings to the shareholders or retaining a proportion and paying the rest as dividends.

The principle behind the attractiveness of the company's ability to pay dividends is that it provides certainty about the company's financing well being. There are a few examples of how the decrease above the increase of a dividend distribution can affect the price of a security. Lowering or omitting dividend distributions would negatively affect companies that have a long standing history of stable

dividends payout; these companies would be positively affected by increasing dividend payouts or making additional payouts of the same dividends. Furthermore, companies without a dividend history are generally viewed favorably when they declare new dividends.

A number of researchers like Black, (1976) have provided insights, theoretical as well as empirical, into the dividend policy puzzle. However, the issue as to why firms pay dividends is as yet unresolved. Several rationales for a corporate dividend policy have been proposed in the literature, but there is no unanimity among researchers. Everyone, however, agrees that the issue is important, as dividend payment is one of the most commonly observed phenomenons in corporations worldwide.

Since Jenson and Meckling [1976], many studies have provided arguments that link agency costs with the other financial activities of a firm. Easterbrook [1984] says that firms pay out dividends in order to reduce agency costs. Dividend payout keeps firms in the capital market, where monitoring of managers is available at lower cost. If a firm has *free cash flows* [Jensen (1986)], it is better off sharing them with stockholders as dividend payout (or retiring the firms debt) in order to reduce the possibility of these funds being wasted on unprofitable (negative net present value) projects.

Lintner (1956) carried out interviews with the top executives of 28 us firms aimed at identifying the factors, which influence their dividend policies. His findings were that a firm's level of earnings was the most important factor, which influenced its dividend policy.

There is no generally accepted definatiion of "cash flow". Currently, this term designates a variety of values which either examine the solvency of liquidity of a company or elese measure the ongoing success and growth of a company. These values include earning before interest, tax, depreciaition, ammortization, (EBITDA). Cash flow from operations, cash flows from investments, free cash flows and net operating profits after taxes (Working Council of Chief Financial Officers, 2000).

Cash flows act on valuations the way gravity acts on matter. The lower the cash flow, the greater the downward pull on valuation (Mc Govern, 1996). Cash flow is the constant flow of money in and out of a company. The outflow of cash is the money paid every month to salaries, suppliers and creditors. The inflow is the money received from customers, lenders and investor (Mc Govern 1996).

Any company, no matter how big or small, moves on cash and not profit. Financial obligations cannot be paid with profits, only cash (Stancill, 1987).

The Financial Accounts and Standards Board , in its discussion memorundum on "reporting funds flow and financial flexiblity" , states as given that profitability and funds flow are different subjects, Gombola and Ketz (1983).

An investigation on cash flows revealed that many authors agree on the importance of cash flow information. Cash flow may be viewed as the lifeblood of a company in the essence of its very existance (Rujoub et al., 1995). Profitable activities do not necessarily provide needed cash and cash generating activitites are not necessariy profitable

The Nairobi Stock Exchange

The Nairobi Stock Exchange (NSE) was established in 1954 and was among the first African stock exchange. Currently the NSE has 48 companies quoted. The business of dealing in shares was then confined to the resident European community since Africans and Asians where not permitted to trade in securities until after attainment of independence in 1963.

The NSE currently trades securities composed of Ordinary shares, preference shares, Debentures, corporate bonds and government bonds. The NSE is a call market as opposed to a continuous market. In a call market trading is allowed only at a certain specified times. In a continuous market, traders may occur at any time. Studies have shown that the trading mechanism significantly affects stock return characteristics (Amihod and Mendelson, 1987) The NSE has been an open out cry system since its establishment. It has since 2005 introduced computerized depository system CDS to increase the speed ands efficiency of transactions.

The NSE deals in local securities particularly shares. It is open from Monday to Friday and then closed Saturdays Sunday and during public holidays. Most stock exchange in the world also trade between Mondays and Fridays (Jaffe and Westerfield, 1989). The similarity of the trading period worldwide would imply that the effect of settlement delays would affect stock prices behavior in a similar manner in most world stock markets (Mokau, 2003)

1.2 STATEMENT OF THE PROBLEM

The dividend policy decision of a firm is a very important management decision. The dividend policy of a firm can be formulated in a variety of ways and it is therefore not just a simple act of either paying cash dividends or not paying.

For a firm which is paying dividends the directors also have to decide how much dividends to pay; how to pay the dividends (cash, stocks or assets) and; when to pay the dividends.

The primary empirical research on dividends has focused on the reaction of the market to changes in dividend policy. Pettit (1972), Aharony and Sway (1980), Asquith and Mullins (1983), Thaler and Womack (1995) have looked at the market reaction to dividend omissions or initiations. Franklin and Roni (1995), asserts that deciding on amounts of earnings to pay out as dividends is one of the major decisions that a firms manager faces. As a result proper understanding of dividend policy is crucial for many other areas of financial economics.

As hypothesized by Miller and Modigliani, (1961), dividend reductions depend on whether earnings include unusual items and more persistent earnings difficulties. Dividend reductions occur significantly less often when losses include unusual income items such as special write downs associated with corporate restructurings. Such losses are less likely to generate dividend reductions because unusual items will tend to have a more transitory earnings impact and/or to be less indicative of on going operating difficulties.

In Kenya an analysis of the relationship between dividend changes and such variables as earnings performance, cash flows and capital structure of firms listed on the Nairobi Stock Exchange has not been carried out; thus, this study was carried out to bridge this knowledge gap by analyzing the relationship between the said variables and the underlying strength.

Several research studies have been done on the topic of dividends payments. Iminza.W, (1997), carried out a research on information content on dividend payments on share prices by publicly quoted companies. She found out that dividend has a significant impact on share price and that the impact is much greater when there is a reduction in dividend paid than an increase. Karanja, (1987) carried out a research to identify dividend practices of publicly quoted companies in Kenya. He found out that, the level of dividends was also found to vary directly with the level of earnings i.e. most companies follow a stable dividend payout rate. Companies on the other hand must retain enough funds to finance its expansion programme.

Studies about dividends and losses have been carried out in the New York Stock Exchange with firms having established track records of positive earnings and dividends payments They documented a high incidence of dividend reductions by firms with persistent three or more losses, but provide no evidence on dividend reduction for firms with transitory losses, or with low but positive earnings.
They found out that an annual loss is essentially a necessary, but not sufficient, condition for dividend reductions in firms with established earnings and dividend records over time. (DeAngelo, 1990).

In the developing economies and emerging capital markets the relationship between dividend and other variables like earnings, cash flows and capital structure of firms has not been assessed or tested to verify if the results would be close to those of the developed markets like the (NYSE). Studies on determinants of dividend policy practices and influences have however been carried in our country at the NSE looking at what are the major determinants of dividends.

This study was carried out with the aim of examining the strength of the relationship between dividends changes with variables such as earnings, cash flows and capital structure among firms listed in the Nairobi Stock Exchange (NSE). It is different from the other studies in that, it will not only identify the variables but seek to establish which one among them influences dividend changes most and if any relationship may subsist between them given the different assumptions of the MM model.

While the issue of dividend policy is far more pervasive, this study addressed the determinants of dividend payout for firms among the said variables. It was concerned with addressing the following questions;

1. Is there any relationship between the dividend policy changes and the given variables i.e. capital; structure cash flow and earnings?

2. Among the three variables, which affects dividend policies more and to what extent is the effect given a change in policy?

1.3 Objectives of the study

This study will basically seek;

1. To establish the relationship between dividend changes and earnings, cash flows and capital structure of companies listed at the Nairobi stock exchange.

2. To determine the sensitivity of dividends to changes in the variables for the firms listed at NSE.

1.4 Importance of the study

The study seeks to benefit the following among others with its findings; that is

1. Investors: - The study will aid the investors in understanding the various dividend policies used by firms and how poor performance by the firms they have invested in will affect amount of dividends to be paid out to them since they can tell the trends of dividend payout given influences on the variables. The findings will provide them with valuable information to be used in making investment decisions

2. Financial Analyst: - The study will help them be in a position to provide better investment advice to their clients especially based on the firm's earnings and previous performances with dividend policies.

3. Management:-It will help them to be aware of the impact of any losses arising and the effect it will have on the dividends amount paid, given a companies past records on dividend payments with the capital structure mix used by it and amount of operating cash flows it has for use.

4. Stock brokers: -The study will help stock brokers in making proper and well informed decisions in advising their clients who are dividend driven as opposed to capital gains

5. Scholars: - To them the knowledge basis in the finance area will be enhanced especially to those who will be willing to study more about firm's performances and the question as to whether to pay or not to pay dividends and retain them for future use given amount of cash outflows the company has for its disposal.

CHAPTER TWO: LITERARTURE REVIEW

2.1 Introduction

This chapter will seek to give an insight of the views of other scholars who have undertaken studies on similar areas about dividends determinants and their findings and discussions. A fundamental relation observed in dividend policy is the widespread tendency of corporations to pursue a relative stable dividend policy.

2.2 Dividend Policy Decisions and Financial Framework

Most corporations seek to maintain a target dividend per share. Profits of firms fluctuate considerably with changes in the level of business activity though dividends are more stable than earnings.
However dividends increase with a lag after earnings rise. Only after an increase in earnings appears clearly sustainable and relatively permanent are dividends increased. When dividends have been increased, strenuous efforts are made to maintain them at the new level. If earnings decline, the existing dividends will generally be maintained until it is clear than on earnings recovery will not take place.

Some researchers have emphasized the informational content of dividends. Miller and Rock 1985, for instance, develop a model in which dividend announcement effects emerge from the asymmetry of information between owners and managers. The dividend announcement provides shareholders and the market place the missing piece of information about current earnings upon which there estimation of the firm's future (expected) earnings is based.

When the focus of corporate managers diverges from those of shareholders, financial policies can be used to reduce agency costs. In particular, Easter Brook (1984) and Jensen (1986) emphasize that consistent dividend payments can mitigate agency conflicts by distributing investment returns and thereby reducing the scope for managerial misallocation and appropriation of corporate resources.

Shleiter and Vishny, (1986) and Allen, Bernardo and Welch (2000) note that institutional investors prefer to own shares by firms making regular dividend payments and argue that large institutional investors are more willing and able to monitor corporate management than are smaller and more diffuse owner. As a result, corporate dividend policies can be tailored to attract institutional investors who in turn provide important monitoring services.

Bernartiz, Michaely, Thaler (1997) analyzes the issue of whether dividend changes signal the future or the past. For a sample of 7186 dividend announcements made by NYSE or AMEX firms during the period 1979-91, they find a lagged and contemporaneous relation between dividend changes and earnings. Their analysis also shows that in the two years following dividend increases, earnings changes are unrelated to the sign and magnitude of dividend changes.

De Angelo, De Angelo.W and Skinner (1992) analyses the relationship between dividend and losses and the information conveyed by dividend changes about the earnings performance. They examine the dividend behavior of 167 NYSE firms with at least one annual loss during 1980-95 and those of 440 firms with no losses during the same period, where all the firms had a consistent track record of ten or more years of positive earnings and dividends. They find that 50% of 167 firms with at least one loss during 1980-95 reduced dividends, compared to 1% of 440 firms without losses. Their findings support signaling hypothesis in that dividend changes improve the ability to predict future earnings performance.

Glen and colleagues (1995) study the dividend policy of firms in emerging markets. They find that firms in these markets have a target dividend payout rate, but less concerned with volatility in dividends over time. They also find that shareholders and governments exert a great deal of influence on dividend policy and observe that dividends have little signaling content in these markets.

Fama and French (2001) analyze the issue of lower dividends paid by corporate firms over the period 1973-1999 and the factors responsible for the decline. In particular they analyze whether the lower dividends were the effect of changing firm characteristics or lower propensity to pay on the part of firms. They observe that proportion of companies paying dividend has dropped form a peak of 66.5% in 1978 to 20.8% in 1999. They attribute this decline to the changing characteristics of firms: "The decline in the incidence of dividend payers is in part due to an increasing tilt of publicly traded firms towards the characteristics – small size, low earnings, and high growth of firms that typically have never paid dividends" (Fama and French 2001).

2.3 TYPES OF DIVIDEND POLICIES

Dividend policy can be defined as the plan of action adopted by the firm's directors whenever there is a dividend decision to be made. Dividend policy determines the division of earnings between payment to shareholders and re-investment in the firm, that is, decision to pay out earnings Vs retaining and reinvesting them. Dividend policy can provide information to the stockholders concerning the firm's performance. The types of payout policies used by firms are:

Stable or predictive dividend policy involves payment of a specific dividend per share each year or periodically and possibly increasing dividend at a constant rate. There are enough evidences to indicate that most firms and stockbroker prefer reasonably stable dividend policies (Mayer et al, 1992). This stability is characterized by a rather strong reluctance to reduce the dollar amount or dividends from period to period. A decrease in the amount of dividend is not made until management is convinced that the new low level of earnings is permanent. Thus dividend changes lag behind changes in earnings.

The advantage with this policy is that the shareholders are certain of some earnings each period the company makes earnings. The disadvantage with this policy is dividends have a signaling effect, that is, a fluctuating dividend would lead to a greater uncertainty. Secondly, shareholders for current consumption may have difficulties to implement this policy if a firm is faced with a liquidity problem. Studies carried out by Lintner 1956 provided evidence that directors of firms are reluctant to change the shilling amount of dividends in response to temporary fluctuations in earnings from year to year. Dividends are therefore "sticky" in nature (Lintner, 1956)

Constant payout ratio policy involves payments of a constant percentage of earnings as dividends. The implication of this policy is that, the amount of dividends paid out might vary violently from period to period depending on a firm's earnings instability. The limitation of the policy with most firms is it increases shareholders uncertainty about the firm's future earnings and dividends. It may be difficult to implement all financial distress. The policy is particularly unpopular with certain groups of shareholders consisting of widows orphans, retires and institutional investors (Doris and Mathur).

Low regular plus extra or bonus is a compromise policy that involves payment of low regular dividends plus year end extras during good years. It gives a firm flexibility yet the investor can count

on receiving at least minimal dividend. The extra dividends have some "information effect". Mathur, (1979) says that firms use this policy to inform the shareholders;
look we are committed to paying our regular dividends and we shall strive to continue to do so. This year we made extra profits therefore, we are temporarily increasing the dividends and calling the increase extra dividend. However you should not expect any extra dividends next year if profits are not at very high level.

This policy is suited for a firm whose cash flows are quite volatile. Such a firm can set relatively low regular dividends to be maintained even in low profit years, this is supplemented with extra dividends in the years of high earnings (Mathur 1979).

Residual dividend is a policy in which dividend paid is set equal to the actual earnings less the amount of earnings and which is necessary to finance the firms optimal capital budgeting. This policy is particularly suited to the growth companies with enormous profitable investment opportunities. Residual policy implies dividend should only be paid out of fresh cash flows. According to this policy, a firm that has to issue a new common stock to finance the optimal capital budgeting has no residual earnings and pays no dividends. The advantage of this policy is that it enables a firm to use cheap internally available funds when investment opportunities arise. The disadvantage on the other hand, is that strict adherence to the policy would imply high dividend variability.

Conditions which necessitate the adoption of the Policy To Pay Regular Cash And Stock Dividends include the following, when a firm wants to continue its record of regular cash payments or if it has reinvested earnings that it wants to capitalize and if it wants to give stockholders a share in the additional earnings but cannot afford to use up its cash. Shareholders have the option of selling their extra stocks and thus receiving "home-made" dividend.

2.4 WHY PAY DIVIDENDS

A firm's shareholders are the rightful owners of all the profits it generates. The shareholders objective in investing in a firm's shares is the maximization of their wealth. Shareholders could either get as their package dividends or capital gains. Given that shareholders own all earnings generated by the firm, it can be argued that they should be indifferent as to either dividends or capital gains.

There are reasons, which make firms to pay dividends. The reasons are discussed below as:

Reduced uncertainty

Provide investors with consumption income

Lack of investment opportunities, which promise adequate returns

Information content of dividends.

2.4.1 Reduced Uncertainty

By not paying the dividends there arises uncertainty amongst the firm's shareholders and the management. Some traditional scholars like Dodd and Cottle (1962), Gordon (1959) and Walter (1956 & 1963) have relied on the uncertainty resolution of dividends to argue that dividends are "good". Traditional view asserts that shareholders value dividends more than capital gains. If it's true, then the declaration of dividends does increase the value of the firm. Thus, those firms that wish to maximize the market value of their shares should payout all their earnings in form of dividends. Graham, Dodd and Cottle (1962) asserted that a shilling of dividends has four times the average impact on share prices, as does a shilling of dividends. They used tow examples of real companies to show that a firm's dividend policy does affect the market value of its shares.

In one example they compared the share price performance of two companies in the railway industry for the period 1939-1947. One firm had made higher profits but paid fewer dividends and consequently it shares fetched lower prices.

Walters (1956) and Gordon (1959) found that dividends are preferred to capital gains hence the need to distribute earnings. Thus dividends do resolve the uncertainty associated with capital gains. Those who identify themselves with this proposition argue that "a bird in hand is better than tow in the bush", companies do payout dividend to resolve the uncertainty.

Modigliani and Miller (MM), (1961) argued that their dividend irrelevancy model does hold even under conditions of uncertainty. Initially MM developed the model under the assumptions of perfect certainty which implied investors behave rationally, information is freely available to all, floatation and transactions costs do not exits. Later, MM (1961) dropped the 'perfect certainty' assumption and went on to show that the model still worked. In reality however it is generally accepted that dividend policy does matter. Form that the concept of "home-made" dividends was thus coined and investors

who wished to receive some cash from their investments could dispose off part of their investment to realize capital gains.

Some of the assumptions made by MM include; No transaction costs are involved, Existence of efficient capital markets; there are many buyers and sellers of securities. When the assumptions hold, MM argued that shareholders would be indifferent as to whether they received returns in the form of dividends or capital gains.

The view that dividends were irrelevant even under condition of uncertainty has been criticized by among others Gordon (1963). Gordon (1963) argued that investors are not indifferent between cash dividends and capital gains. Therefore according to Gordon (1963) shareholders will almost always prefer to receive dividends than capital gains. The reasoning that firm's pay out dividends to their shareholders in order to reduce uncertainty remains controversial as some scholars including (MM) argue that there is no a justifiable reason where shareholder are assumed to be rational (Dodd and Cottle 1962),

2.4.2 Provide Investors with Consumption Income

This reason will apply mainly where the investors are widows or retirees. Some investors will generally invest in the firm's shares because they expect to receive dividends in the future to meet their consumption needs. Hence, it is argued that failure to payout dividends will cause sufferings and frustration to the investors and thus may push them to liquidate their holdings in a particular firm. Some scholars find this argument in favor of dividends to be weak as it ignores the fact that shareholders are free to liquidate part of their holdings and consequently realize capital gains if they needed the income for consumption purposes.

Modigliani and Miller's (MM), (1961) assumptions were heavily criticized for being unrealistic for in the real world, as we know its transaction costs can be quite high. This implies that liquidating shares can never be a perfect substitute for dividends. Another complication with "*home-made*" dividends is the presence of differential tax rates between dividend income and capital gains. Generally, capital gains are taxed at a lower rate than dividend income and this makes them appear preferable especially to those shareholders in high income tax brackets. Presently, in Kenya capital gains are not taxable while dividend incomes to the individual are taxed at the shareholders.

Marginal tax rate: The implication of this phenomenon is that rational share holders who prefer more wealth to less should have a clear preference for capital gains over dividend income.
Subsequent studies since MM's (1961) paper have been directed at finding out whether dividends do influence a firm's value when differential tax rates for dividend income and capital gains exist.
Farrar and Selwyn (1967) used partial equilibrium analysis to show that shareholders are only interested with maximizing there after tax income.

They found out that share holders are only interested in maximizing there after tax income. They also found out that shareholders prefer dividend payments to capital gains. Their findings in summary form are as follows: In general the best form of payment is the one, which is subject to least taxation. The implication of course is that corporations should never pay dividends. If payments are to be made to share holders, they should always be made via share repurchase. It will allow shareholders to avoid paying income taxes rates on dividends. They instead will receive their payment in the form of capital gains, which are taxed at a lower rate.

Brennan (1970) studied the behavior of share prices of firms when differential tax rates existed. He concluded that the presence of these differential tax rates made capital gains be preferred to dividends. Consequently he concluded that; for a given level of risk, investors require a higher total return on a security the higher its prospective yields is because of the higher rate of tax levied on dividends than on capital gains.

Elton and Grubber (1970) carried out studies on 900 New York stock exchange firms and found that dividends were irrelevant in firm's valuation ever when differential tax rates between dividends and capital gins were present. These were attributed to the "clientele effect" hypothesis, which was first hypothesized in MM's (1961) paper. This hypothesis holds that firms will attract shareholders who are affected by taxes through uniformly through their dividend policies. Thus firms will deliberately pursue a dividend policy that will attract a clientele of shareholders whom they can satisfy. Thus, Elton and Grubber (1970) provided evidence in support of Modigliani and Miller's (MM) irrelevance theorem irrespective of tax implications of dividend payments.

Miller and Scholes (1978), and De Angelo (1980) also argued that dividends were irrelevant even when differential tax rates for dividends and capital gains were present. In a different paper, miller and

Scholes (1982) argued that investors could eliminate the effect of differential taxes by levering their portfolios i.e. including debt.

This could be done by borrowing funds and invest in equities or have them invested in tax free insurance policies. This again implies that dividends could still be irrelevant in firm's valuations. (Miller and Scholes 1978)

2.4.3 Lack of investment opportunities with adequate returns

If there are no proper or good investment opportunities, a firm may declare dividends to reward its shareholders. This view in finance has come to be referred as "residual theory of dividends." The theory holds that dividends are declared only after a firm has exhausted all its needs for investment funds. This reasoning has been advocated by the traditional theorists on dividend theories like Gordon (1959), Walter (1956 and 1963). The traditional view of dividends does recognize the fact that dividend payments do reduce the amount of funds available to the firm for investment purposes when external opportunities for investment funds are ignored.

According to this traditional view, dividends should be declared only when there are "unattractive" investment opportunities. When a firm has abundant investment opportunities, dividends should not be declared and shareholders contend them selves with capital gains, which arise from the retention of earnings. It implies that the payment or non payment of dividends does not affect the market value of a firms share. E.g. when a company faced with several attractive investment opportunities declares a 100% dividend payout ratio, it follows that its value would fall as income generating opportunities are lost. Investments do not necessarily have to be financed from retained earnings and the criteria of which funds to utilize should be determined by the cost of these funds. The line of reasoning was accredited by MM (1961) argued that the availability or non- availability of "good enough" projects should not be used as basis for determining dividend payments.

Subsequent to MM (1961) Baumol et al (1970) carried out studies that showed that the rate of return on new equity is much higher than the rate on internally generated funds. Their findings were summarized as follows: "the firm will tend to utilize more expensive money only if it has available an investment project sufficiently promising to justify the higher costs and if it has pretty well run out of funds derivable from cheaper sources."

Thus Baumol et al found in support the residual theory of dividends. Firms must hence exhaust all the internal sources of funds for investment purposes before resulting to external financing.

The investment decision is also influenced by the investment opportunities, which are available to a particular industry. The "industry effect" was first mentioned by Lintner (1956). This hypothesis holds that firms in the same industry are likely to pursue similar dividend policies. Further support for the "industry effect" hypothesis was given by Michael (1979) who found evidence that industry classification is closely related to the level of dividends in the USA (Lintner 1956).

In another study Michael et al (1980) summarized the studies carried out on the industry effect hypothesis as follows; the results obtained theoretically by Modigliani and Miller and Empirically by Fama, Black and Scholes and Miller and Scholes, implying no systematic relationship exists between a firm's dividend policy and the level of profitability of its investment decisions. Due to the structural characteristics of an industry, it is unlikely that investment opportunities within an industry are similar. If there is no systematic industrial influence on debt valuation, one would expect to find no systematic relationship between a firm's dividend policy and the industry in which the firm operates. "*Journal of Business Finance and Accounting", (Autumn 1980), pg 366.*

The argument that dividends should be paid to shareholders only when the firm lacks attractive investment opportunities lacks wide spread support from the currently available literature on dividends.

2.4.4 Information content of dividends

This is another reason why firms should pay dividends. It is said that dividends do actually convey useful information to the investors. An increase in dividends is taken by the shareholders to mean that the board of directors expects the firm to do well in the future. Lintner (1956) found out that directors used dividend policy to convey to the shareholders their expectations about the firm's future performance. He carried out his study by interviewing executives of 28 USA firms. Since directors use the firm's dividend policy to convey useful information they do not adjust the dividend payments to changes in earnings instantaneously. Firms do have a target payout ratio and it is only when management is convinced that the change in earnings is permanent that the dividend policy is changed. It indicates that the dividend changes will always lag behind changes in earnings. Most firms will take some time years before adjusting their dividend payments to earnings (Lintner 1956).

Brittain (1966) tried to fit Lintner's speed of adjustment model to data on US corporations and came up with inconsistent results. He found out that when aggregate data for all US corporations and for all manufacturing corporations was used, the model worked very well though modified slightly to take account of the firm's cash flows. However, the model was not as successful when applied to 40 individual firms (rather than aggregate). He attributed the discrepancy in his findings to the fact that the 40 firms were not a representative cross section of US corporations.

Traditionally dividends do convey valuable information to the investors and other market participants. They argue that dividends are used by management to signal their future expectations of the firms performance. MM in 1961 in their revolutionary paper argued that dividends did not convey any use full information to the investors and hence was a rejection of the hypothesis. In achieving their objectives of proving that dividends were information free, MM invoked the assumption of perfect capital market where "all traders in the stock market have equal land costless access to information about the ruling price and about all other relevant characteristics of shares. Hence according to MM, dividend policy does not affect a firm's value (Brittain 1966).

Fama, Fisher, Jensen and Roll (1969) performed the first test study on the "information content hypothesis". Their study basically involved testing the effects of stock splits when accompanied by dividends announcements on a firms share price. They found in favor of the information content hypothesis and hence firms which announced dividends increases alongside stock splits had the market value of their shares increased and vice versa.

Pettit (1972) used quarterly dividend announcement to test their accuracy in predicting a firms future earnings. He sampled 625 New York Stock exchange firms for the period January 1964 through 1968 and found clear support for the hypothesis that dividend announcement provides investors with information that is used in assessing the market value of a firm's shares.

Watts (1973) calculated the abnormal performance index on 310 American firms for 24 months around the dividend announcement date .He found that the performance of firms with dividend increases tends to be better than that of firms which decrease their dividends. He argued that investors do indeed make use of other sources of other in formation like earnings, and hence their assessment of a firm's expected performance is not restricted to use of dividends only.

Aharony and Swary (1980) carried out market studies on the influence of dividends on the firms valuation by attempting to minimize the effect of contemporaneous information especially earnings. Thus, they used the market returns of only those companies where the dividends announcement dates differed form earnings announcement dates by at least 11 days. They found a small but significant dividend announcement effect. On the other hand Laub (1946) Ezzel (1976), Gonedes (1976), and Litzenberger and Ramaswamy (1982) carried out studies which provided evidence that dividends are "all for nothing" and therefore, do not convey any useful information

Litzenberger and Ramaswamy (1982) used groups of portfolios of companies quoted on the New York Stock exchange to test whether the stock returns are influenced by their tax of information. Using a mathematical model they developed, they found a strong but non-linear relationship between a firm's dividend yield and its stock market returns. This they argued could be explained by the tax effect rather than on information effect.

They concluded that; the prediction rule for the expected dividend yield is based solely on the information that would have been available to the investor ex Ante and hence is free from potential information effects that are contained in dividend yield variables that anticipate the occurrence or lack of a dividend.

Therefore the directors who declare dividends so that they may convey their expectations of the firms future performance they should be cautious as some empirical evidence does show that investors may not use dividends as information signal (Litzenberger and Ramaswany 1982).

2.5 DETERMINANTS OF A FIRMS DIVIDEND POLICY

There are a number of factors that a firm must consider when deciding the amount and form of dividends to pay. These factors, which ordinarily influence a firm's dividend policy, are discussed below here as follows:

Share holder's expectations: -Where the shareholders are used to receive a stable and possible increasing dividends they will definitely expect the same pattern of payments to continue in future if there happens to be a sudden reduction or change, or such a policy is likely to promote share holders to dispose of their shares and cause the share price in the market to drop.

Investment needs: - The financial need of a company may be in conflict with the desirers of the shareholders. Managerial evidence requires giving more weight to financial only when the company has profitable investment opportunities.

Constraints of paying dividends: - Most companies may recognize the fact that shareholders desire to receive dividends although some are interested in capital gains. Some factors that restrict a firm from declaring dividends are as follows: (Weston and Bringham)

2.5.1 Legal restrictions: - Dividend policies are affected by the legal requirements in different countries. The legal rule provides that dividends must be paid from earnings either from the current year earnings or from past year's earnings as shown in the balance sheet as retained earnings. Payment of dividends out of paid up capital is clearly restricted by the companies act and hence illegal unless certain specified conditions are fulfilled. The state law emphasizes three rules that is,

Net profit rule, which provides that dividends can only be paid from past or present earnings.

Then there is the capital impairment rule; it protects the creditors by forbidding the payments of dividends from capital. Insolvency rule provides that corporations cannot pay dividends while insolvent (Weston and Brigham 1981)

2.5.2. Restrictions on loan agreement: - These policies are also affected by restrictive clauses in loan agreements. The clauses, which are intended to protect the lender from a firm's "unfair" practices, restrict the firm's ability to pay cash dividends.

Ordinarily these clauses restrict the firm from paying dividends out of past-retained earnings. The restriction is employed by the lender to preserve the company's ability to service debt. Similar types of restrictions are to be found when a firm utilizes preferred stock. Preferred stock agreements will usually require that cash dividends be paid to ordinary shareholders only when all accrued preferred dividends have been paid. (Weston and Brigham 1981)

2.5.3 Access to capital markets: - A firm's accessibility to capital markets does also influence its dividend decisions. Generally large well established firms with a record of profitability and stability of earnings have easy access to funds in the capital markets and other firms of external financing. Conversely, new firms are generally riskier and normally find it difficult to raise funds externally. They therefore result to internal sources, meaning high earning retention and low dividend payout ratios. Accessibility to the capital market is not only affected by the firm's size and its records of

earnings but also influenced by the reputation of the firm's management in the market. (Weston and Brigham 1981)

2.5.4. Investment opportunities: -Dividend policy is also affected by the availability of profitable investment opportunities. Investment projects can be financed by either through the use of debt or equity. However raising new debt and equity is more expensive due to transaction costs, than using internally generated funds. Firm's with many profitable investment opportunities will generally retain funds to finance these invest these investments hence pay little or no dividends. Conversely, those firms with limited investment opportunities may have to maintain higher dividend payout ratios (Mathur I op.cite).

2.5.5. Liquidity position: - The mare fact that a firm shows a large amount of profits in the accounts does not necessarily indicate its ability to pay dividends. A firms retained earnings are normally invested in its assets like plant and machinery and not necessarily in cash assets. A growing firm is usually in need of cash to finance its investment projects and hence even though its cash assets may be substantial, it may never the less maintain a low dividend payout ratio .A firms liquidity position is also affected by its needs to pay debt. A firm must therefore consider its projected (budgeted) cash needs before making the dividend decisions.

2.5.6. Stability of earnings: -Firms with relatively stable earnings are able to predict future earnings with a high degree of accuracy. Thus they can adopt a high dividend payout ratio, as they know that such a level is maintainable in the future. Firms with earnings that fluctuate significantly from year to year, find it difficult to predict future earnings. These firms will have tendency to retain most funds to finance internal investments. To prevent that they adopt conservative dividend payout ratios and helps them avoid wide fluctuations in cash dividends.

2.5.7 Working capital needs: -A firm must take into consideration its working capital needs before deciding on what type of dividend policy to pursue. Adequate funds to meet working capital requirements must be set aside before dividends are declared .The dangers of weakening a firms working capital position was summarized by Walker as, "Any firm that weakens its working capital position by paying dividends not only determines its entire capital structure, but may very well cause

creditors and investors to raise the price of their funds in such cases, the interest of existing stockholders are harmed rather than helped".(Walker E.W 1965).

2.5.8 Capital structure mix: - Dividend policy is also influenced by a firms capital structure mix. The mix describes the usage of debt and equity capital in financing firms operations. The capital structure concept is a very important concept in finance as it does influence a firm's cost of capital, which in turn has influence on the firm's dividend policy. The target optimal mix is usually that mix which is considered optimal by a firm's management (Modigliani and Miller Economic review 1958).

2.5.9 Control: - In situations where shareholders place a lot of importance to maintain a grip (control) over ownership of the firm, high retention and use of debt capital may be the order of the day. Firms will thus pursue to maintain control rather than pay high dividends and issue new equity simultaneously (Weston J.E Brigham E.F 1981)

2.6 RELATIONSHIP BETWEEN DIVIDENDS AND OTHER PARAMETRES

Studies by Fama and Babiak (1968) have applied Lintners model to date for individual firms. The two researchers used a sample of 412 firms for the period 1974-1964.They adjusted Lintner's model to read as follows: -

$$D_{it} = a_L + B_{Li} D_{i,t-1} + B_{2L} E_{it} + B_{3i} A_{it} + U_{itG}$$

D_{it} = Dividend per share paid by firm I during year t

E_{it} = profits per share

A_{it} = Depreciation per share

U_{it} = Random disturbance terms

They divided the sample into two and used half the firms to ruling prices. Drhymes and Kuntz (1967) propose a world in which because of capital markets imperfection, internal funds are a cheaper source of financing of the firm than new security issues and that dividend and investments are competing uses for limited internal funds. According to them, there should be a high correlation between dividends and investments.

Drhmes and Kutz (1967) used a sample of 181 firms to examine the relations between investment dividends and external behavior of firms. They obtained data from balance sheets and income statements of individual firms appearing in various issues in moody's manual. The main findings were as follows:

1. Strong inter dependence is evident between the investment and dividend decisions.
2. There is compelling evidence, which suggest that in estimating the structure on ought to use full.

Information methods

Another study by Fama (1974) attempted to examine the relationship between dividends and other variables like investments, lagged profits. He used the arguments forwarded by Miller and Modigliani, Drhymes and Kutz to examine empirically the extent to which the dividend and investment decisions of individual firms are interrelated. Thus using the models based on imperfect capital markets Fama tested the proposition that there is a complete interdependence between the dividend and investment decisions of individual firms. He used annual financial statement information on 298 major industrial firms for the period 1946-68 as reported on compustat tapes of the standard statistics corporation for a 23-year period.

He found out that the two variables Lintners model (1956) does better than all the other dividend models. Thus depreciation lagged profits and GNP does not in general help to explain the dividend decisions of individual firms. Even in the investment model GNP and depreciation do not seem to be systematically important in explaining changes in capital stock. He found no systematic evidence of interdependence in the year by year dividend and investment decisions by firms. This finding is in complete contradiction to the results of Drhymes and Kutz. (Fama 1974).

Higgis (1972) seek to derive and test a model of dividend saving decision for a shareholder of a wealth-maximizing firm. He worked from the assumption that capital gains are superior to dividends as a source of shareholder income and that the optimal strategy for the shareholder wealth maximization enterprise is obviously to maximize share price appreciation relative to dividends. One of the implications of this is to establish a dividend policy, which minimizes the use of external equity financing because a dividend payment financed either directly or indirectly with new equity capital gains, has the effect of substituting dividends for capital gains. That is dividends should be treated as a residue to be distributed if and only if, internal funds and a companying borrowings are sufficient to finance all the firms investment needs. (Higgis 1972)

Additionally the maximization of share price appreciation implies that the company investment decisions should be independent of its dividends and in particular investment-promising yields in excess of the company hurdle rate should not be foregoing in favor of dividend payments.

According to Higgins dividend paying firms should not employ external equity financing, the only source of equity capital available to the firm is retained earnings. Consequently a fixed relationship should exist between the optimal amount of net new borrowings per period and the amount of earnings retained.

Higgins used four cross section multiple regression tests and found a negative correlation between investments and dividends. He also found that dividends are independent of size. Industry dummy variables were added to the regression equations and contrary to Drhymes and Kutz (1967), Higgins result suggested that for the most part of the results industry variables are insignificant. An attempt is made to include the possible effects of current asset and borrowing reserves or deficits can obtain as a result of management errors in forecasting future cash flows. It was found that when companies with surpluses paid higher dividends and those with deficits paid lower dividends as the companies moved to an optimal payout (Higgins 1972).

The other study, which has examined the relationship between dividends and other parameters, is a study of Rozeff (1986) where he attempted to find out if there were some identifiable financial characteristics that clearly distinguished companies paying higher dividends from those, which had chosen to pay smaller proportions of their earnings. He sought to find out if there were some distinguishing characteristics that influenced management choice of a dividend policy. He used multiple regression to describe the relationship between dividends and the three independent variables i.e. external; financing financial leverage and agency costs.

As measures for transaction costs of a companies required external financing, he used two variables the growth rate of the companies revenues over a five year period 1974-1979), and value lines forecast of the growth of sales revenue over the next five years, to 1984.The measure used for financial leverage is the company's index or beta coefficient. Companies with higher operating and financial leverage will also choose lower dividend payouts to reduce costs of external financing and thus a negative correlation between dividends and a company's beta should be expected.

Several studies for e.g. Rozeff (1982) have argued that the role of higher dividends is to reduce the implicit loss in value associated with out side shareholders loss of control of management decisions. The larger the proportion of shares owned by outsiders the higher the potential agency cost and thus the higher the expected level of dividends. Rozeff in (1986) used the percentage of stock held by the insiders as a negative surrogate for the level of agency cost of outside ownership. Companies with large proportions of inside ownership would have lower dividend payout ratios and vice versa.

Another study, which was set to examine the relationship between dividends and industry, was that of Kent, Farelly and Edelman (1985). They did a study across three industries namely Utilities manufacturing and wholesale /Retail. They used Lintner's model to interview managers across these twenty firms. They found cash and firms future earnings to be very important determinants of dividend policy. They failed to find any industrial effects contrary to the study done by McCabe (1979), Michael (1979) Drhymes and Kuntz (1967) who may have provided evidence that a companies industry may be an important determinant of payout policy.

Drhymes and Kutz used a sample of 181 firms between 1974, 1960 and classified the firms according to various industrial classifications. They found out those firms in mining, textile, building and petroleum industries tend to pay higher dividends per dollar sales, than firms in electrical appliances agricultural equipment beverages and retail industrial classifications.

2.6.1 Relationship between dividends and capital structure

Dividend policy and capital structure mix studies describe the usage of debt and equity capital in financing a firm's operations. The capital structure concept is a very important concept in finance since it influences the value of the firm. The traditional view holds that the firm's capital structure does influence its value. On the other hand, MM (1958) wrote a classic paper which they argued the case for the irrelevant capital structure in firm's valuation. Firms may decide on the target capital structure mix. Leverage is found to have some role in the dividend decision, with higher levels of debt consistent with a greater likelihood of a reduction in the distribution whilst also suppressing profitability in future years.

Debt capital structure

Debt in this study will refer to long-term debt and will include debentures bonds and other securities, which are repayable beyond one year and within one year. Debt can be measured using various such as debt/equity ration debt total assets and capital employed to net worth ration. In his study debt/equity ration will be used to ascertain the proportion of debt in the capital structure.

Indicator of debt policy

This measures the extent to which the firm has been financed by debt. A high level of debt means that claims of creditors are greater than those of owner and this reduces flexibility in the firms operations due to the increasing interfere and pressures from CR. The following indictors have been forwarded by Brealey and Myers (2001)

Debt Equity ratio:

Measures the lender control relative to the owner's control. It is computed as follows.

Debt Equity ration = total Debt/Net worth.

A low Debt equity rate is implies a greater claim of owners than CR. This represents a favorable situation for creditors due to a large margin of safety.

The higher the debt equity ratio the large the shareholders earnings when the cost of debt is less than the firms overall rate of return on investment

Debt to total assets ration

Measures the percentage of total funds that have been provided by creditors prefers moderate debt ratios since the lower the ratio, the greater the cushion against creditors losses in the event of liquation. It is competed as follows

Debt –total assets = total /total assets

Capital employed to net worth ratio

Measures the amount of funds being contributed by lender and owners of each shilling of the owner's contribution. Calculated as follows;

Capital employed – net worth = capital employed/not worth

Where a target capital structure mix policy is pursued, it definitely has an influence on the firms dividend policy Changes in dividend and capital structure policies convey information to the stock

market about the future performance of a firm. Many event studies find that dividend and pure leverage changes are associated with abnormal stock returns. However, the economic rationale for this market information effect has not been entirely resolved.

Cross-sectional studies (Gaver and Gaver, 1993, 1995; Jensen, Solberg, and Zorn, 1992; and Smith and Watts, 1992) find that dividend and capital structure policies are not independent. Their findings suggest that management might continually change the policy mix over time to influence agency costs and firm performance.

Less attention has been given to the time-series relations implied by the capital-structure-signaling hypothesis. Cornett and Travlos (1989) examine changes in earnings after exchange offers, and find a subsequent positive change in earnings. Shenoy and Koch (1996) also find a positive time-series relation between leverage and subsequent cash flow. Their finding is consistent with signaling theory.

Several studies have empirically tested these implications of the free-cash-flow theory and have had mixed results. Lang and Litzenberger (1989) partition a sample of dividend changes into two groups, those for firms with q values less than one and those for firms with q values greater than one. They find that low-q firms have larger abnormal returns than high-q firms do, and they interpret this result as consistent with the free-cash-flow hypothesis. Using an analogous methodology, Howe, He, and Kao (1992) examine a sample of share repurchases and special dividends. However, they find no significant differences across low- and high-q firms. Denis, Denis, and Sarin (1994) reexamine a sample of dividend changes, and after controlling for dividend yield, find no significant differences between low- and high-q firms.

2.6.2 Relationship between dividends and cashflows

Signaling theory hypothesizes that investors can infer information about a firm's future cash flow by observing a signal, such as the amount of dividends. Firms with higher expected future cash flow wish to communicate this information to outsiders, but for signaling to work, firms with lower expected cash flow must not be able to imitate the signal, so that outsiders can rely on the signal to differentiate among firms. Therefore, firms choose signaling actions that vary systematically with the level of cash flow.

Dividend signaling models suggest that managers increase dividends only when they are confident that higher dividends can be maintained with higher subsequent cash flow. Models developed by Bhattacharya (1980), John and Williams (1985), Miller and Rock (1985), and Williams (1988) predict that higher dividends will be associated with higher subsequent cash flow.

Lang and Litzenberger (1989) show that the free-cash-flow hypothesis implies that dividends will have a larger impact on agency costs, and thus a larger information effect, for an over investing firm (whose Tobin's q is less than one) than for a value-maximizing firm (whose Tobin's q is close to one).

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Giacomino and Mielke (1993) investigated whether the cashflow statement can enhance the usefulness of financial information for economic decision making. The author proposed nine cash flows based ratios to be used for relative performance evaluation.They conducted an emperical study of cash flow statement to provide industry averages and to determine if the potential exists to develop bench marks for the ratios by industry. The avereages for the ratios or norms were computed for 1986 to 1988 in the electronic, food and chemical industries. Giacomino and Mielke (1993) proposed operating cashlow ratios for relative perforemance evaluation in the USA. Jooste (1999) calculated similar ratios under three year average (1994 to 1996) for listed companies in South Africa.

Miller and Marsh (1987) also tested various models of dividends at the firms level and also at the aggregate level and they noted that " Our finding about aggregate dividends do exhibit systematic time series behavior provides evidence that strictly firm specific theories of dividends such as signaling cannot by it self explain the dividend puzzle."

Most of the studies have been done in the U.S.A or in Europe .In Kenya a number of studies have been carried out like; Karanja, (1987) studied dividends practices of publicly quoted companies in Kenya and found that there are many reasons why firms should pay dividends. One of the reasons is

lack of investment opportunities, which promise adequate return. Firm's cash position was the most important consideration when paying dividends. Most relevant to this study is that he obtained data on the major determinants of dividend policy in Kenya. He found three factors to be most important .The first is cash and liquidity position, followed by current and prospective profitability and lastly the company's level of distributable income. He also observed that foreign controlled companies have more liberal dividend policies than locally controlled firms.

Farida. A (1993) studied the parameters that are important in the determination of dividend by publicly quoted companies in Kenya. In her study she examined empirically the parameters which are important in the determination of dividends of publicly quoted companies she concluded that liquidity is the most important in determining dividends. Other factors she considered are working capital, cash flows, profitability and investments.

Obonyo (1989) Investigated whether banding of investors around equity securities is a discernible phenomenal in Kenya companies. He divided companies in four defined by their respective dividend yields to reflect relationship between company dividend policies and market reactions. The study concluded that there is indication of non-tax determined clientele existence in Kenya.

Iminza (1997) carried out a study to investigate whether dividend payment does affect stock prices and from use of χ^2 test, found that some companies that continually paid dividends had significant increase in their share prices. She found out that dividend does have a significant impact on shares and concluded that the impact is much greater when there is a reduction in dividend paid than an increase. This indicates that, unlike the findings of some scholars like M.M, in Kenya dividend does affect share prices. It is therefore beneficial to managers to evaluate their dividend policies if they have to increase the value of their firms.

Maina (2002) carried out a research to explore the relationship between dividend and investment decision. In her study she found out that the dividend model was the most favorable in the companies under investigation. The investment variable in the different company was significant in the dividend model where as the dividend variable in the investment model was also significant in the investment model She concluded that investment decisions affect the dividend decisions and that a relationship does exist.

Another study by Mbugua (2004) on evaluating information content of stock dividend announcement on twenty-four companies that had issued stock dividend/stock split .She examines the impact of stock announcement on share prices of companies and impact of stock dividend size on stock dividend has an effect on stock returns.

Kiprono (2004) in his study on determining the relationship between cashflows and earnings performance measures the companies listed at the NSE found out that ; There is a positive or direct relationship between cash flow from operating activiteis and all return performance indicators ie ROA,RONA, ROE as evidenced by pearsonian coeficients of corelation. Secondly there is a negative or indirect association between cashflows from investing activities and cashflows from financing activities and returns performance indicators ie ROA and ROE.

This study in summary will be carried out with the aim of examining the relationship between dividends changes and variables such as earnings, cash flows and capital structure among firms listed in the Nairobi Stock Exchange (NSE). This literature gives a new direction of study in that for most of studies done outside Kenya were in the set up of perfect market which is non existence in the developing economies. This study will also seek to establish which variables amongst cash flows earnings and debt will influence the change in dividends more.

IAPTER THREE: RESEARCH METHODOLOGY

Research Design

is is a causal study, which seeks to explain the existence of a relationship between Dividends, rnings, capital structure and Cash flows, for the companies listed at the Nairobi stock exchange.

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3.2Population and sample

The population consisted of all the companies listed at the Nairobi stock exchange (NSE) as from 1998 o Dec 2003.The period is chosen since it is considered to be adequate time for any relationship to exist. It was constituted of the following sectors, Agriculture, Commercial & services, Finance & investment and Industrial & Allied. The study was limited to quoted companies due to lack of readily available data among the private companies.

3.3 Data collection

The study sourced data from secondary sources. The data was obtained from the annual financial statements of the listed companies and other resourceful information available at the NSE secretariat for the years 1998-2003.The data extracted include Dividends per share, earnings per share, cash flows to Total assets and debt to Equity ratio from published Annual reports of quoted companies.

3.4 Data Analysis

Data was analyzed using statistical package for social science and regression analysis was carried out since it best suited for providing a means of establishing quantitative association between variables. In this study the dependent variable was dividends and the independent variables are Earnings, cash flows and leverage. For the variables in the study an average was computed for each year and then a simple average for all the six years was computed.

For: Dividends we will use: dividends per share (DPS) =Dividends / No. Of shares

Cash flows we will use: net Operating Cash flows / Total Assets (Fixed −Current)

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Cash flows we will use: net Operating Cash flows / Total Assets (Fixed −Current)

Earnings we use: Earnings after tax / No. of shares (EPS)

Leverage we use: debt to equity ratio D/E ratio=Debt / Equity

The regression models will take the forms:

Simple Regression: $Yj = \beta o + \beta_1 X_1$ Equation 1 Dividends with earnings

$Yj = \beta o + \beta_2 X_2$ Equation 2 Dividends with cash flows

$Yj = \beta o + \beta_3 X_3$ Equation 3 Dividends with debt

Multiple Regression: $Yj = \beta o + \beta_1 X_{1J} + \beta_2 X_{2j} + \beta_3 X_{3j} + e_j$

Yj → Typical value of the Y (independent variable from the population of interest) Dividends

$\beta_1 X$, $\beta_2 X$, $\beta_3 X$ → Represent Regression coefficients for earnings, cash flows and capital Structure respectively for the simple regression model

βo, β_I → Population partial regression coefficient

X_{1j}, X_{2j}, X_{3j} → Observed values of the independent variables X1, X2 and X3 Respectively i.e. Earnings, cash flows and capital structure

e_j → Error term

Once the regression equation was obtained the significance tests was conducted so as to identify those variables that are more important in the regression model. The student "t" value was used to determine whether to accept or reject the null hypothesis. If Bi =0 it indicates that Xi (any of the independent variables) does not make a significance contribution to the ability of estimating the dependent variables.

N-2 degrees of freedom at the 95% level of confidence will be used to obtain the critical t values.

For the purposes of fitting the regression line as much as possible to total variation, the study will use two methods to determine the model of fitness. These are;

i. Coefficient of determination R^2

R^2 is a measure of the degree of linear association between predictor variables and response variables.

ii. Analysis of variance ANOVA

This will provide a method for testing the following hypothesis

$H_0 = \beta_1 = \beta_2 = \beta_3 \ldots \beta_k = 0$

HA = β1=0 for some 1,2,3….. K

The problem of regression analysis of autocorrelation and multicollinearity were dealt with as follows. Autocorrelation problem was overcome by carrying out an analysis of the residuals and this was done with the help of Durbin Watson statistic test.

The problem of multicollinearity can be corrected by adding more observation points to the collinear variables. The problem with this is that more data points may not be a available .The other solution which was used in this study was to delete one or more collinear variables, there by reducing the variability of the estimated regression coefficient of the remaining variables.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter shows the analysis of the data collected. It also presents and discuses the findings of the study. Using the 43 companies reviewed over the period 1998-2003.This research project was set to establish the existence of a relationship between Dps, Eps and Net cash flows and Capital structure (Debt) for the companies listed at the Nairobi stock exchange

4.2 Findings and Discussions of the Analysis

Regression analysis both simple and multiple was used to analyze the data collected. The results are presented in the appendices.

4.2.1 Multiple regression model (All companies collectively)

R^2 measures the degree of variability of the dependent variable due to the change in independent variable. R^2 of more than 50% implies that the relationship between the two variables is very strong and there fore any small changes on the dependent variable will have a n effect on the independent variables. The data fitting results can be described as good in that the model has a high predictive ability with the 3 variables under study with R^2 >75.3%. That implies that about 75.3% of the variations in dividend per share are explained by the three variables tested using the regression model. The multiple regression model obtained was as follows;

$$Y= 0.42+0.49E+1.012NC+0.231D$$

Where E is earnings per share, NC is Net cash flows to Total assets; D is debt to Equity ratio. The Net cash flows to total assets ratio appears to be the most significant beta value followed by EPS and Lastly D/E ratio. See table on Model summary below.

Table 1.4: Multiple regression model summaries

odel	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change statistics					Durbin-Watson
					R Squar Change	F Change	df1	df2	Sig.F change	
	0.868	0.753	0.734	2.396158		39.635	3	39	0.000	1.800

a Predictors: (Constant), DEBT EQUITY RATIO, CASH FLOWS PET TOTAL ASSETS, EARNINGS PER SHARE

b Dependent Variable: dividend per share

The above analysis shows in assessing all the companies collectively the 3 variables EPS, NCFA D/E ratio they contribute to about 75.0% of the variations in the dividend per share levels. However these results may change if the variables are analyzed individually for each company or if each sector is analyzed separately.

4.2.2 T values for all Companies

Test of significance were carried out for all the variables studied using the student t test at the 95% level of significance i.e. at a test statistic of 2.58 at 95% level of significant otherwise it is not significant. The results obtained are shown on table 1.2 coefficients where by only EPS is significant but the net cash flows and debt equity ratios are not significant.

4.2.3Analysis Of Variance (ANOVA) All companies

ANOVA is used to test the overall statistical significance of a regression equation i.e. it is used to test whether all the true regression coefficients in the equations equally to zero. The F test is used to confirm the existence of a relationship between the dependent variable and all the independent variables considered collectively.

Table 1.5 Anova from the table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	682.698	3	227.566	39.635	0.000
	Residual	223.921	39	5.742		
	Total	906.619	42			

a Predictors: (Constant), debt equity ratio, cash flows pet total assets, earnings per share
b Dependent Variable: dividend per share

With the 3 variables and 39 degrees of freedom, F critical will be F0.05=2.84.Since the observed value of F of 39.635 far exceeds this amounts of 2.84, we should reject the null hypothesis that the three variables (independent) do not significantly influence payment of dividends and conclude therefore that the three variables are significant

4.2.4 Multiple Regression Results per Sector

From the model summary we find that following analysis discussed below.

Agricultural Sector

The above sector currently has a total of 4 companies quoted at the NSE. A study on all companies was carried out by the researcher, which is 100% companies in the Sector. Considering the coefficient of determination (R^2), it was found that the 3 variables in this sector have a strong positive relationship of 100% which shows a very strong significant relationship among the variables tested. Using the Durbin Watson Test with K=3 n=43 (du=1.666 dl=1.383)

Commercial Sector

The above sector currently has a total of 7 companies quoted at the NSE. The researcher studies 6 companies out of the total that being 95% of all companies in the sector. By looking at the R^2, it was found that the 3 variables in the sector have a strong relationship i.e. 94.4%, which indicates a strong significant relationship among the tested variables.

Finance and investment Sector

This sector currently has 11 companies listed at the stock exchange. 8 companies were studied being about 73% of the companies, the reason being the researcher decided to separate the banks and financial institutions from insurance companies and service companies due to the debt issue due to the nature of their financial statement interpretation of debt being different from the others. By looking at the R^2 we find that it is 90% indicating a significant relationship between the variables.

Industrial Sector

This sector has a total of 16 quoted companies at the NSE. The researcher however studied 14, which is about 88.1% of all the population. The R^2 of this sector shows that R^2 =08.31. Shows that there is a significant relationship between the said variables although not as strong the other sectors.

Alternative Investment segment

This sector is made up of 9 companies all listed at the NSE. The researcher however studied 8 companies, which is about 88% of the total population. The R^2 of this sector was found to be 94.6% indicating a strong positive and significant relationship between the variables.

From the above regression results the summary table shows that it was found out that the 3 variables are most significant factors affecting dividends in the Agricultural sector with the R^2

of 100%. then followed by Alternative Investment Segments with R^2 of 94.6% then by commercial sector with R^2 of 94.4% then finance and investment with R^2 of 90% and lastly the factors are least significant in the industrial sector with R^2 of 68.3%.

Table 2.4: showing summary of R^2 for individual sectors

SECTOR	R^2
AGRICULTURAL	100%
COMMERCIAL	94.4%
FINANCE	90%
INDUSTRIAL	68.3%
ALTERNATIVE INVESTMENT	94.6%

Source: research data

The above information on the R^2 results can be summarized as shown above by the table.

Durbin Watson Test statistic was used to test for autocorrelation in the model. It tested the independence of each value in the sectors. With K=3 n=43 the statistic limits will be as follows (dl=1.388 du=1.666). Since we accept the null hypothesis that there is no autocorrelation when d<4-du, and reject the null when the equation d<4-dl is satisfied the sectors findings are presented below as shown by the table.

Table 2.5: showing test for overall model and autocorrelation per sectors

DEPENDENT VARIABLE	SECTORS	F Ratio	Durbin Watson test
DPS	AGRICULTURE	0.0	0.598
	COMMERCIAL	11.295	1.612
	FINANCE	12.081	1.807
	INDUSTRIAL	9.330	2.261
	AIMS	23.128	1.849

The null hypothesis is accepted in the Agricultural, Commercial, financial sectors showing that there is no significant evidence of auto correlation (serial correlation). The d values for the sectors all satisfy the equation d<4-du.

The null hypothesis is also accepted in the industrial and Aims Segment though there is insignificant evidence of autocorrelation. The conclusion therefore is that there was no significant evidence of autocorrelation in the regression model.

4.2.5 Analysis of variance per sector (ANOVA)

In the Agricultural sector where 3and 0 degrees of freedom, F critical is F 0.05 =0 and since the model has an R^2 =1 then the variables have a strong positive and significant relationship and they cause a significant variation in the agricultural sector.

In the commercial sector where 3 and 2 d.f F critical is F 0.0.5=9.55. Since the observed value of F exceeds the amounts in this sector we reject the null hypothesis that the 3 variables do not have a significant influence in the dividends in this sector, while they cause significant variations in dividends and so they do have an influence.

In finance and investment where we have 3 and 4 degrees of freedom F critical is F 0.0.5 =9.12. Since the observed values of F=12.081 far exceeds F critical F=9.12 then we reject also the null hypothesis that the 3 predictor variables do not have a significant influence in the dividends in this sector and conclude that they also have an influence..

In the industrial sector since the observed value of F=9.330 exceeds, the F critical F 0.05 =8.7 at 3 and 13 df , then we should reject the null hypothesis that the 3 variables do not have a significant influence in the dividends in the particular sector though not as big as the previous sectors.

In the AIMS sector our observed value of F=23.128 exceed the critical F 0.05 = 9.12.We then also reject the null hypothesis that the 3 independent variables do not have a significant influence in the dividends in this sector. It is therefore conclusive that the 3 independent variables are critical in influencing dividends in this sector.

4.3 Simple Regressions (all companies)

Regression between DPS and EPS

From the analysis of the simple regression Model the value of R^2 for all the companies is 73.4%, which implies that about 73.4% of the variations in the dividends per share are explained by EPS changes. This shows that there is a strong positive relationship between the two variables with a beta of +0.477 and a t value, which is statistically significant. The simple regression model between DPS and EPS will be as follows:

$$Y=0.888 + 0.477E$$

Where E here represents earnings per share

Regression between DPS and Net Cash Flows

The R^2 for this relationship between DPS and net cash flows is 0.064 or 6.4%, which implies that about 6.4% of the variations in the dividend per share are explained by changes in net cash flows. This shows a weak positive relationship when significant as shown by a beta of +12.706. This percentage is low therefore it exhibits there is no significant relationship between the two variables hence variability of DPS is due to variations of other factors besides changes in net cash flows also need to increase for any relationship to hold. The simple regression model between DPS and NCFA will be as follows.

$$Y= 1.978 + 12.706\ NCFA$$

Where NCFA represents Net cash flow to Total Assets ratio

Regression between DPS and D/E Ratios

R^2 for the above relationship of 0.002 or 0.20, which implies that about 0.2% of the variations in the dividend per share, are explained by changes in debt values of the firms sampled. The percentage is also very low indicating that there is no significant relationship between dividends and debt which a company or firm has in its capital structure. The relationship is weak and negative as shown by the beta of 0.0066 from the equation. The simple regression model between the DPS and Debt will be as follows.

$$Y= 2.927 - 0.00661D/E$$ where D/E Debt Equity Ratio

From the above analysis we can conclude that the most influencing or significant factor is earnings per share, followed by cash flows then finally debt as shown by the model summary.

Table 2.1: showing variables ranked in terms of significance

Variable	Rank in terms of significance
Earnings	1
Debt	2
Cash flows	3

Source: research data

It was found that cash flow is however the least significant variable and earnings is the most significant variable from the model after the multiple regression for all the companies was run.

4.4 Analysis Of Variance All Companies (Simple Regression)

Regression between DPS and EPS

ANOVA is used to test whether all the true regression coefficients in the equation equal zero. We use the F test to confirm the existence; table on ANOVA 1.2 as shown below gives a summary on the significance of the model.

Table 2.2 Analysis of variance between DPS and EPS

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	665.769	1	665.769	113.334	.000[a]
	Residual	240.850	41	5.874		
	Total	906.619	42			

a Predictors: (Constant), earnings per share
b Dependent Variable: dividend per share

This model is significant with 1 and 41 degree of freedom critical is F 0.05 =4.08. Since the observed value of F of 113.33 far exceeds this amount we reject the null hypothesis that the independent variable EPS does not significantly influence dividend changes and it is therefore significant.

Regression between DPS and NCFA

With 1 and 41 degree of freedom F critical is F 0.05=4.08. The observed value of F is 2.805. Since this value is below the F Critical of 4.08 then we accept the alternative hypothesis or

fail to reject the null that independent variable NCFA, does significantly influence dividend change and it is therefore not significant. This is shown in the table below.

Table 2.3 Analysis of variance between DPS and NCFA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.063	1	58.063	2.805	.102[a]
	Residual	848.557	41	20.697		
	Total	906.619	42			

a Predictors: (Constant), Net cash flows per Total assets
b Dependent Variable: dividend per share

With 1 and 41 degree of freedom F critical is F 0.05 =4.08. The observed value of F is 0.066 and since the value is below the F critical of F 0.05 =4.08 we fail to reject the null hypothesis that the independent variable D/E does not have a significant influence in the dividends for all the companies and it is therefore not significant. This is shown in the table below

Table 2.4 Analysis of variance between DPS and NCFA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.454	1	1.454	0.066	.799[a]
	Residual	905.166	41	22.077		
	Total	906.619	42			

a Predictors: (Constant),Debt equity ratio
b Dependent Variable: dividend per share

Table 2.4 Analysis of variance between DPS and NCFA

It was observed from the above models or regression equations that only the equation between Dividends and Earnings is statistically significant but those between Dividends and cash flows and between dividends and debt are not statistically significant. The order of significance will be as shown in the table below where they are ranked.

We can therefore conclude also that dividend change is most sensitive to Earnings, this cash flows from operating from operating activities and finally to debt in that order.

Table 2.3: Test of overall model simple regression

Variables	R^2	F ratio	Significance	Rank
Earnings	73.4%	113.334	0.00	1
Cash flow	6.4%	2.805	0.102	2
Debt	0.2%	0.66	0.799	3

From the table above we can see that Earnings is the most significant variable Sig 0.00 and that Debt is the least significant Sig 0.799 among the variables mentioned in the models and hence the weights are also ranked as the level of significance.

Leverage has a direct relationship with dividends which is not conventional but perhaps because most of the companies that were highly leveraged had high liquidity too.

In all the sectors studied namely; Agriculture, Commercial, Finance, Industrial and AIMS after looking at the ANOVA for the multiple regression model, all the three variables seemed to have a significant influence on the model used. By looking at the simple regression models it was found out that the relationship between DPS and EPS was strong and positive in nature with a correlation coefficient of 85.7%.The relationship between DPS and Cash Flows was second with a correlation coefficient of 25.3% which is positive but weak in nature. The relationship between DPS and Debt to Equity ratio to represent capital structure had a coefficient of -4.0% which is a weak and negative correlation which shows that the direction of the relationship is inverse that is the more the dividends paid the lesser the amount of debt to equity ratio and vice versa for lesser dividends.

Summary

Leverage is found to have some role in the dividend decisions with higher levels of debt consistent with a greater likelihood of a reduction in the distribution whilst also suppressing profitability in future years. Debt is one of the variables that would logically appear to be a consideration when managers are making a dividend decision. De Angelo and De Angelo (1990) found out that for firms with multiple annual losses, debt covenants are a factor considered in dividend policies which is also the case for some of the firms in the NSE.

Out of the firms listed at the NSE about 23.2% have high debt to equity ratio indicating that they apply more debt that the equity amount they have on their capital structure. The dividend amounts of this 23.2 % firms is also low as expected but there are exceptionals like Barclays bank and Stanchart bank who in spite of the high debt to equity ratio still pay a high dividend amount .

Companies with higher operating and financial leverage choose lower dividend payout to reduce costs of external financing and thus a negative correlation between dividends and a company's beta should be expected as in the case of DPS and DE ratio where we have a beta of -.00661.This is in agreement with what Rozeff (1986) found out in his study considering financial leverage as one of his variables affecting dividends.

There is also a direct relationship between dividends paid and the amount of profits made that is the Dps and the Eps in that firms making high earnings pay higher dividends or pay dividends. About 58% of firms studied had a high Eps and a high Dps showing a relationship.

The model used in this study is similar to that used by Karanja (1987) and Farida (1993). Where by they had a model with 6 variables and were assessing their effects on the dividend and its determinants. In their studies they both found out that liquidity seemed to be the most important variable among the companies listed at the NSE and it was also significant. Working capital was second and then cash flows. From table 2.3 with simple regression results profits have overshadowed the cash flows as a determinant of dividends which is a contradiction of what Brittain's (1966) found out in his study where by he ranked cash flows before the profits as a determinant of dividends. Benito and Young (2001) use UK data to show that a high degree of leverage is associated with dividend omission. The effect of leverage is even more strongly linked to the propensity to cut dividends.

Models developed by Bhattacharya (1980), John and Williams (1985), Miller and Rock (1985), and Williams (1988) predict that higher dividends will be associated with higher subsequent cash flow. The results of the study are inconsistent with the models developed by Bhattacharya and John although some firms had negative operating cash flows and still ended up paying dividends If a firm has *free cash flows* [Jensen (1986)], it is better off sharing them with stockholders as dividend payout (or retiring the firms debt) in order to reduce the possibility of these funds being wasted on unprofitable (negative net present value) projects.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings of the study. The main focus of this project was to attempt to establish a relationship between the dividends and earnings, cash flows and capital structure.

5.2 Findings and Discussions

The data used in this analysis covered a period of 6 years from 1998 to 2003 and was obtained from the Nairobi stock exchange. The research involved the use of regression analysis. Correlation coefficients of determination were obtained to assist in determining the nature and magnitude of the relationship between the variables DPS and EPS, NCFA and D/E ratio

Leverage has a direct relationship with dividends which is not conventional but perhaps because most of the companies that were highly leveraged had high liquidity too.

By looking at the simple regression models it was found out that the relationship between DPS and EPS was strong and positive in nature with a correlation coefficient of 85.7%.The relationship between DPS and Cash Flows was second with a correlation coefficient of 25.3% which is positive but weak in nature. The relationship between DPS and Debt to Equity ratio to represent capital structure had a coefficient of -4.0% which is a weak and negative correlation which shows that the direction of the relationship is inverse that is the more the dividends paid the lesser the amount of debt to equity ratio and vice versa for lesser dividends.

5.3 Summary

The model used in this study is similar to that used by Karanja (1987) and Farida (1993). Where by they had a model with 6 variables and were assessing their effects on the dividend and its determinants. In their studies they both found out that liquidity seemed to be the most important variable among the companies listed at the NSE and it was also significant.

Out of the firms listed at the NSE about 23.2% have high debt to equity ratio indicating that they apply more debt that the equity amount they have on their capital structure. The dividend amounts of this 23.2 % firms is also low as expected but there are exceptionals like Barclays

bank and Stanchart bank who in spite of the high debt to equity ratio still pay a high dividend amount

The 3 variables are most significant factors affecting dividends in the Agricultural sector with the R^2 of 100%, then followed by Alternative Investment Segments with R^2 of 94.6% then by commercial sector with R^2 of 94.4% then finance and investment with R^2 of 90% and lastly the factors are least significant in the industrial sector with R^2 of 68.3%.

The above analysis shows in assessing all the companies collectively the 3 variables EPS, NCFA D/E ratio they contribute to about 75.0% of the variations in the dividend per share levels.

5.4 Conclusions

We can therefore conclude also that dividend change is most sensitive to Earnings, then cash flows from operating from operating activities and finally to debt in that order. Those firms with high debt to equity ratios pay low amounts of dividends with an exceptional of about 5% who pay a high amount. About 58% of firms studied had a high Eps and a high Dps showing the presence of a strong relationship between the said variables.

5.5 Limitations of the study

Considering that it is difficult to have a perfect research situation, it is then expected that this research will have some limitations.

The study was intended for use data for all the companies quoted on the NSE for a 6-year period. This was not achieved due to lack of information. The data available was for only companies. Accessibility of information for more companies could have resulted I better results obtained.

The period covered in he study is only 5 years. A longer could possibly have yielded different results.

The interpretation of financial statements was problematic especially for the banking ad insurance institutions. Insufficient details are given concerning what companies comprises long-term debt.

The study focused only on the companies listed at the NSE. However, there are less than sixty companies that are listed while there are money other unlisted private companies operating in Kenya. Consequently, the findings of this study cannot be generalized.

5.6Suggestions for further research

For the purpose of improving this study, it is suggested that:

A similar study could be carried out over a long period of time so as to obtain more reliable findings say more than ten years.

The variables identified in this study can be tested on companies not quoted at the NSE. The additional information obtained thereof including the results of this study can be used to draw generalizations for firms in Kenya.

Due to the shortcomings identified in the limitations of regression models in this study, researchers can use other models e.g. simultaneous equations to explain various relationships between dividends and variables. Dividend for other years not used by the researcher can be used to validate the model.

A study to be carried out either on dividend changes with earnings reduction of firms or dividend changes (policy) and firm's capital structure or on the effects of dividend change on performance of firms listed on the NSE.

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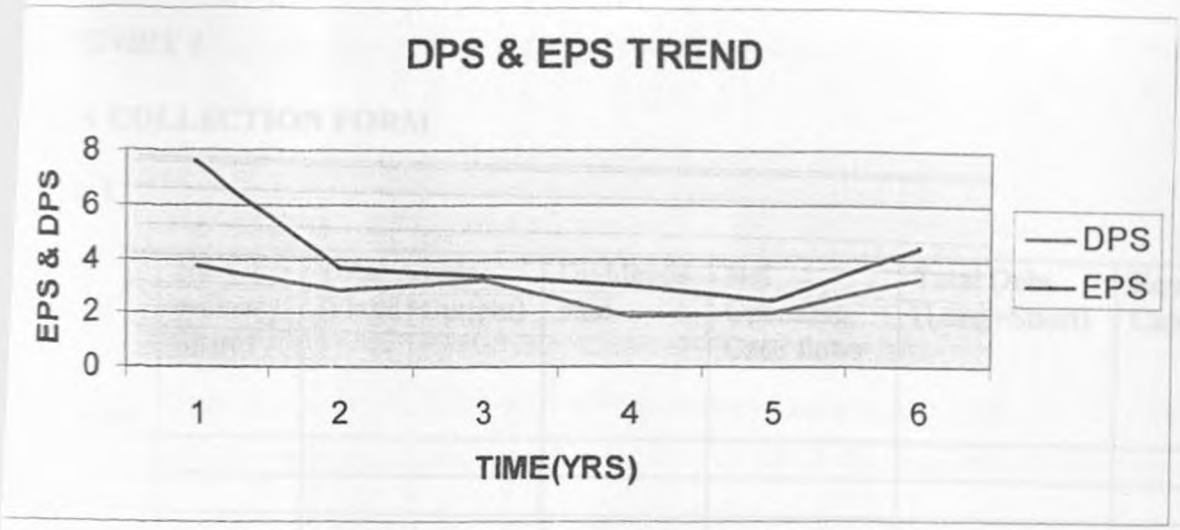
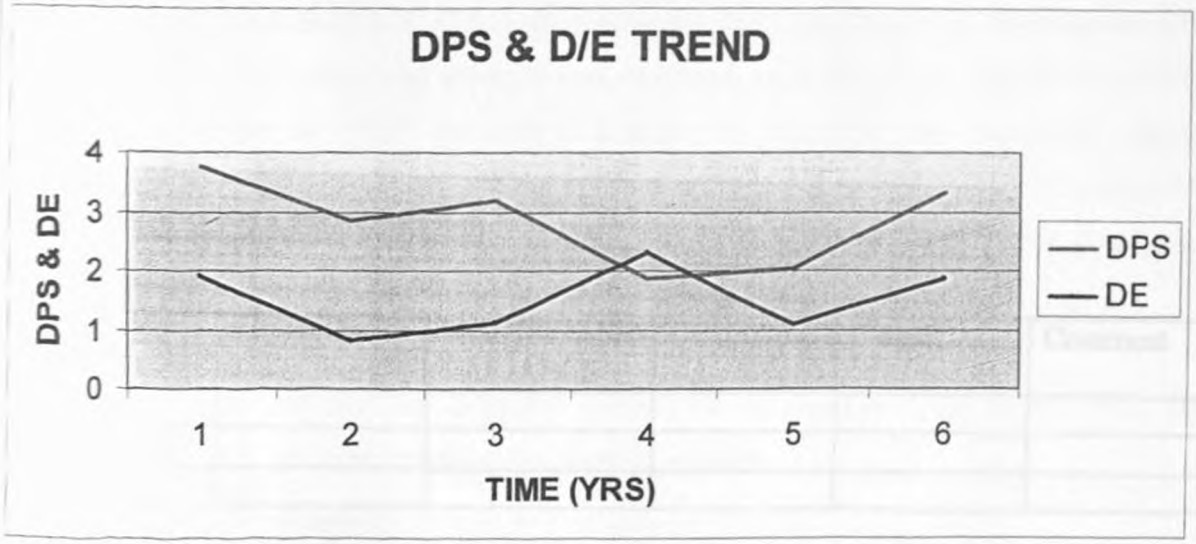
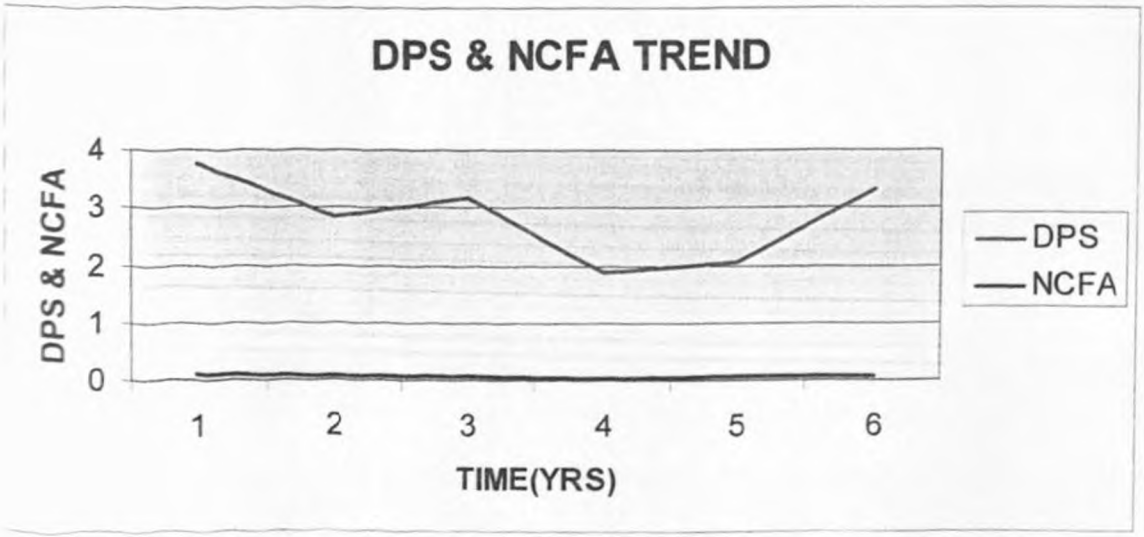


Graph 1: Showing trends in DPS and EPS over the years 1998 to 2003



Graph 2: Showing trends of DPS and D/E ratio for the years 1998 to 2003



Graph 3: Showing DPS and Net Cash Flow trends for the years 1998 to 2003

APPENDIX I

DATA COLLECTION FORM

Table I

Sector / Company	No. Of ordinary Shares	Total Assets (Fixed+Current)	Dividends paid	Net Operating Cash flows	Total Debt (Long+Short)	Equity Capital

DATA PRESENTATION FROMS

COMPANY	SECTOR	SIGNIFICANT VARIABLE	R^2	F-ratio	Comment

Table II

APPENDIX II: INTRODUCTION LETTER TO THE NSE.

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: REQUEST FOR RESEARCH DATA

I am postgraduate student at the University of Nairobi pursuing a course leading to the award of a Masters degree in Business Administration (MBA).To fulfill the requirements for the award of the degree, I am required to undertake a research project.

In this regard, I am undertaking a research project entitled **"An Empirical investigation of the relationship between dividend changes and earnings, cash flows and capital structure for the firms listed on the NSE".** In order to achieve this objective, data concerning operating cash flows, EPS DPS shareholders funds for the period **1st January 1998-31st December 2003** from your organization will be very useful. I hereby request for the research data at your organization.

Any information that will be extracted from your database will be treated with strict confidentiality and used specifically for academic purposes.

Yours Faithfully,

P.WANDETO
Student.

MR.KARANJA
Supervisor,

APPENDIX 1II: LIST OF COMPANIES SAMPLED FOR THE STUDY

	NAME OF COMPANY
	Agricultural
1.	Unilever Tea Kenya Ltd. Ord. 10.00
2.	Kakuzi Ltd. Ord. 5.00
3.	Rea Vipingo Plantations Ltd. Ord. 5.00
4.	Sasini Tea & Coffee Ltd. Ord. 5.00
	Commercial and Services
5.	Car & General (K) Ord. 5.00
6.	CMC Holdings Ltd. Ord. 5.00
7.	Kenya Airways Ord. 5.00
8.	Marshalls (E.A) Ord. 5.00
9.	Nation Media Group Ord. 5.00
10.	Tourism Promotion Services Ltd. Ord. 5.00
	Finance and Investment
11.	Barclays Bank Ltd. Ord. 10.00
12.	CFC Bank Ltd. Ord. 5.00
13.	Diamond Trust Of Kenya Ord. 5.00
14.	Housing Finance CO. Ltd.
15.	ICDC Investment CO. Ltd Ord. 5.00
16.	Jubilee Insurance CO. Ltd. Ord. 5.00
17.	Kenya Commercial Bank Ord. 10.00
18.	National Bank Of Kenya Ltd. Ord. 5.00
19.	NIC Bank Ltd. Ord. 5.00
20.	Pan Africa Insurance CO. Ltd. Ord. 5.00
21.	Standard Chartered Bank Ord. 5.00
	Industrial and Allied
22.	Athi River Mining Ord. 5.00
23.	BOC Kenya Ltd.
24.	Bamburi Cement Ltd. Ord. 5.00
25.	British American Tobacco Kenya Ord. 5.00
26.	Carbacid Investments Ltd. Ord. 5.00
27.	Crown Berger Ord. 5.00
28.	Olympia Capital Holdings Ltd. Ord. 5.00
29.	E.A cables Ord. 5.00
30.	E.A Portland Cement Ord. 5.00
31.	East African Breweries Ltd. Ord. 10.00
32.	Firestone E.A Ord. 5.00
33.	Kenya Oil CO. Ltd. Ord. 5.00
34.	Total Kenya Ltd. Ord. 5.00
35.	Unga Group Ltd. Ord. 5.00

	Alternative Market Segment
36.	A Baumann & CO. Ord. 5.00
37.	City Trust Ltd. Ord. 5.00
38.	Eaagads Ord. 1.25
39.	Express Kenya Ord. 5.00
40.	Williamson Tea Kenya Ltd. Ord. 5.00
41.	Kapchorua Tea CO. Ltd. Ord. 5.00
42.	Limuru Tea Ord. 20.00
43.	Standard Newspapers Group Ord. 5.00

Multiple Regression all Companies

Descriptive Statistics

	Mean	Std. Deviation	N
dividend per share	2.82714	4.646092	43
EARNINGS PER SHARE	4.06358	8.344534	43
CASH FLOWS PER TOTAL ASSETS	.06681	.092538	43
DEBT EQUITY RATIO	1.51444	2.813479	43

Correlations

		dividend per share	EARNINGS PER SHARE	CASH FLOWS PET TOTAL ASSETS	DEBT EQUITY RATIO
Pearson Correlation	dividend per share	1.000	.857	.253	-.040
	EARNINGS PER SHARE	.857	1.000	.289	-.201
	CASH FLOWS PER TOTAL ASSETS	.253	.289	1.000	-.151
	DEBT EQUITY RATIO	-.040	-.201	-.151	1.000
Sig. (1-tailed)	dividend per share	.	.000	.051	.399
	EARNINGS PER SHARE	.000	.	.030	.098
	CASH FLOWS PER TOTAL ASSETS	.051	.030	.	.167
	DEBT EQUITY RATIO	.399	.098	.167	.
N	dividend per share	43	43	43	43
	EARNINGS PER SHARE	43	43	43	43
	CASH FLOWS PER TOTAL ASSETS	43	43	43	43
	DEBT EQUITY RATIO	43	43	43	43

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	DEBT EQUITY RATIO, CASH FLOWS PER TOTAL ASSETS, EARNINGS PER SHARE[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: dividend per share

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.868[a]	.753	.734	2.396158

Model Summary[b]

Model	Change Statistics					Durbin-Watson
	R Square Change	F Change	df1	df2	Sig. F Change	
1	.753	39.635	3	39	.000	1.800

a. Predictors: (Constant), DEBT EQUITY RATIO, CASH FLOWS PER TOTAL ASSETS, EARNINGS PER SHARE

b. Dependent Variable: dividend per share

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	682.698	3	227.566	39.635	.000[a]
	Residual	223.921	39	5.742		
	Total	906.619	42			

a. Predictors: (Constant), DEBT EQUITY RATIO, CASH FLOWS PER TOTAL ASSETS, EARNINGS PER SHARE

b. Dependent Variable: dividend per share

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.420	.535		.785	.437
	EARNINGS PER SHARE	.490	.047	.879	10.430	.000
	CASH FLOWS PER TOTAL ASSETS	1.012	4.194	.020	.241	.811
	DEBT EQUITY RATIO	.231	.135	.140	1.716	.094

Coefficients[a]

Model		95% Confidence Interval for B		Correlations		
		Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	-.662	1.501			
	EARNINGS PER SHARE	.395	.585	.857	.858	.830
	CASH FLOWS PER TOTAL ASSETS	-7.471	9.496	.253	.039	.019
	DEBT EQUITY RATIO	-.041	.504	-.040	.265	.137

a. Dependent Variable: dividend per share

Casewise Diagnostics[a]

Case Number	Std. Residual	dividend per share
33	-3.631	7.833
42	3.224	26.333

a. Dependent Variable: dividend per share

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-2.47933	18.60721	2.82714	4.031714	43
Residual	-8.69962	7.72579	.00000	2.308996	43
Std. Predicted Value	-1.316	3.914	.000	1.000	43
Std. Residual	-3.631	3.224	.000	.964	43

a. Dependent Variable: dividend per share

Simple Regression Dps & debt ratio

Descriptive Statistics

	Mean	Std. Deviation	N
dividend per share	2.82714	4.646092	43
debt equity ratio	1.51444	2.813479	43

Correlations

		dividend per share	debt equity ratio
Pearson Correlation	dividend per share	1.000	-.040
	debt equity ratio	-.040	1.000
Sig. (1-tailed)	dividend per share	.	.399
	debt equity ratio	.399	.
N	dividend per share	43	43
	debt equity ratio	43	43

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	debt equity ratio[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: dividend per share

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.040[a]	.002	-.023	4.698639	.002	.066	1	41	.799

a. Predictors: (Constant), debt equity ratio

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.454	1	1.454	.066	.799[a]
	Residual	905.166	41	22.077		
	Total	906.619	42			

a. Predictors: (Constant), debt equity ratio

b. Dependent Variable: dividend per share

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.927	.816		3.588	.001	1.279	4.575
	debt equity ratio	-6.613E-02	.258	-.040	-.257	.799	-.587	.454

a. Dependent Variable: dividend per share

Simple Regression Dps & Eps

Descriptive Statistics

	Mean	Std. Deviation	N
dividend per share	2.82714	4.646092	43
earnings per share	4.06358	8.344534	43

Correlations

		dividend per share	earnings per share
Pearson Correlation	dividend per share	1.000	.857
	earnings per share	.857	1.000
Sig. (1-tailed)	dividend per share	.	.000
	earnings per share	.000	.
N	dividend per share	43	43
	earnings per share	43	43

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	earnings per share[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: dividend per share

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.857[a]	.734	.728	2.423716

Model Summary[b]

Model	Change Statistics					Durbin-Watson
	R Square Change	F Change	df1	df2	Sig. F Change	
1	.734	113.334	1	41	.000	2.019

a. Predictors: (Constant), earnings per share

b. Dependent Variable: dividend per share

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	665.769	1	665.769	113.334	.000[a]
	Residual	240.850	41	5.874		
	Total	906.619	42			

a. Predictors: (Constant), earnings per share

b. Dependent Variable: dividend per share

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.888	.412		2.156	.037
	earnings per share	.477	.045	.857	10.646	.000

Coefficients[a]

Model		95% Confidence Interval for B		Correlations		
		Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	.056	1.720			
	earnings per share	.387	.568	.857	.857	.857

a. Dependent Variable: dividend per share

Casewise Diagnostics[a]

Case Number	Std. Residual	dividend per share
33	-3.554	7.833
42	3.236	26.333

a. Dependent Variable: dividend per share

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-2.06895	18.48955	2.82714	3.981412	43
Residual	-8.61349	7.84345	.00000	2.394689	43
Std. Predicted Value	-1.230	3.934	.000	1.000	43
Std. Residual	-3.554	3.236	.000	.988	43

a. Dependent Variable: dividend per share

Simple Regression Dps&Cashflow

Descriptive Statistics

	Mean	Std. Deviation	N
dividend per share	2.82714	4.646092	43
Net cashflow per Total assets	.06681	.092538	43

Correlations

		dividend per share	Net cashflow per Total assets
Pearson Correlation	dividend per share	1.000	.253
	Net cashflow per Total assets	.253	1.000
Sig. (1-tailed)	dividend per share	.	.051
	Net cashflow per Total assets	.051	.
N	dividend per share	43	43
	Net cashflow per Total assets	43	43

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Net cashflow per Total assets[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: dividend per share

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.253[a]	.064	.041	4.549341

Model Summary[b]

Model	Change Statistics					Durbin-Watson
	R Square Change	F Change	df1	df2	Sig. F Change	
1	.064	2.805	1	41	.102	1.902

a. Predictors: (Constant), Net cashflow per Total assets

b. Dependent Variable: dividend per share

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.063	1	58.063	2.805	.102[a]
	Residual	848.557	41	20.697		
	Total	906.619	42			

a. Predictors: (Constant), Net cashflow per Total assets

b. Dependent Variable: dividend per share

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.978	.859		2.302	.026
	Net cashflow per Total assets	12.706	7.586	.253	1.675	.102

Coefficients[a]

Model		95% Confidence Interval for B		Correlations		
		Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	.243	3.713			
	Net cashflow per Total assets	-2.614	28.026	.253	.253	.253

a. Dependent Variable: dividend per share

Casewise Diagnostics[a]

Case Number	Std. Residual	dividend per share
42	5.004	26.333

a. Dependent Variable: dividend per share

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-2.79921	5.00221	2.82714	1.175773	43
Residual	-4.14421	22.76655	.00000	4.494856	43
Std. Predicted Value	-4.785	1.850	.000	1.000	43
Std. Residual	-.911	5.004	.000	.988	43

a. Dependent Variable: dividend per share

Descriptive Statistics

	Mean	Std. Deviation	N
dividend per share	.88000	.823250	6
earnings per share	2.12217	4.930263	6
Net cashflow per total assets	.08100	.058447	6
Debt to equity ratio	.96150	1.535280	6

Correlations

		dividend per share	earnings per share	Net cashflow per total assets	Debt to equity ratio
Pearson Correlation	dividend per share	1.000	.771	.901	-.472
	earnings per share	.771	1.000	.548	-.848
	Net cashflow per total assets	.901	.548	1.000	-.307
	Debt to equity ratio	-.472	-.848	-.307	1.000
Sig. (1-tailed)	dividend per share	.	.036	.007	.172
	earnings per share	.036	.	.130	.017
	Net cashflow per total assets	.007	.130	.	.277
	Debt to equity ratio	.172	.017	.277	.
N	dividend per share	6	6	6	6
	earnings per share	6	6	6	6
	Net cashflow per total assets	6	6	6	6
	Debt to equity ratio	6	6	6	6

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Debt to equity ratio, Net cashflow per total assets, earnings per share[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: dividend per share

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.972[a]	.944	.861	.307294

Model Summary[b]

Model	Change Statistics					Durbin-Watson
	R Square Change	F Change	df1	df2	Sig. F Change	
1	.944	11.295	3	2	.082	1.612

a. Predictors: (Constant), Debt to equity ratio, Net cashflow per total assets, earnings per share

b. Dependent Variable: dividend per share

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.200	3	1.067	11.295	.082[a]
	Residual	.189	2	.094		
	Total	3.389	5			

a. Predictors: (Constant), Debt to equity ratio, Net cashflow per total assets, earnings per share

b. Dependent Variable: dividend per share

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.223	.310		-.719	.547	-1.557	1.111
	earnings per share	.115	.064	.690	1.802	.213	-.160	.390
	Net cashflow per total assets	8.673	3.006	.616	2.885	.102	-4.262	21.609
	Debt to equity ratio	.162	.180	.302	.898	.464	-.614	.938

Coefficients[a]

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	earnings per share	.771	.787	.301	.190	5.259
	Net cashflow per total assets	.901	.898	.482	.612	1.635
	Debt to equity ratio	-.472	.536	.150	.246	4.063

a. Dependent Variable: dividend per share

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	earnings per share	Net cashflow per total assets	Debt to equity ratio
1	1	2.380	1.000	.03	.01	.03	.01
	2	1.425	1.292	.00	.05	.00	.06
	3	.128	4.312	.54	.04	.78	.00
	4	6.676E-02	5.971	.43	.90	.19	.93

a. Dependent Variable: dividend per share

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.12107	2.29708	.88000	.799980	6
Residual	-.35061	.24277	.00000	.194350	6
Std. Predicted Value	-.949	1.771	.000	1.000	6
Std. Residual	-1.141	.790	.000	.632	6

a. Dependent Variable: dividend per share