

**DIVIDEND PAYOUT DECISIONS AND INDUSTRY INFLUENCE:  
EVIDENCE FROM NAIROBI STOCK EXCHANGE**

**BY  
KIMATHI, GEORGE MWENDA  
D61/P/7126/2005**

**SUPERVISOR  
HERRICK ONDIGO**


**A Management Research Project Submitted In Partial Fulfillment for the Award of  
Master of Business Administration (MBA) Degree, School Of Business, University  
Of Nairobi**

**October 2008**



**DECLARATION**

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

Signed.  .....

Date. 16<sup>TH</sup> NOV. 2008.

**KIMATHI, GEORGE MWENDA**

**D61/P/7126/2005**

This project has been submitted for examination with my approval as university supervisor.

Signed.  .....

Date. 15:11:08

**HERRICK ONDIGO**

**Department of Accounting and Finance**

## DEDICATION

This research is dedicated to both of my parents, for instilling discipline and the thirst for knowledge at a very tender age even before joining formal schooling; I will never forget the sticks counting and the ground writing lessons from my strict late father, Godwin and my ever concerned mother Juliet.

To all of you who made me what I am today.

## ACKNOWLEDGEMENT

I thank the Almighty God for the life. Thank you for being with me all through.

I acknowledge my immediate family; my loving wife Liz, our daughter, Nkirote , our son Muriithi for being beside me all the way. Your support and encouragement has seen me this far. You are a source of great inspiration in my life.

I also acknowledge my supervisor, Herrick Ondigo, who guided me throughout the research period.

I also acknowledge the entire staff and management of all the firms that were surveyed for allowing me to gather information from them concerning their organization, NSE and the Capital Markets Authority. Your contribution to this research cannot be underestimated.

## TABLE OF CONTENTS

DECLARATION .....	i
DEDICATION .....	ii
ACKNOWLEDGEMENT .....	iii
LIST OF TABLES.....	vi
ABSTRACT.....	vii
CHAPTER ONE: INTRODUCTION AND MOTIVATION.....	1
1.0 Background of the Study .....	1
1.1 The Nairobi Stock Exchange (NSE).....	4
1.2 Statement of the Problem.....	5
1.3 Objectives of the study.....	6
1.4 Significance of the study.....	6
CHAPTER TWO: LITERATURE REVIEW .....	7
2.1 Dividend Payout.....	7
2.1.1 Constant payout ratio .....	7
2.1.2 Constant amount per share .....	7
2.1.3 Constant Dividend per share plus extra/surplus .....	7
2.1.4 Residual dividend policy .....	7
2.2 Mode of Paying Dividends .....	8
2.2.1 Cash and Bonus Issues .....	8
2.2.2 Stock split and reverse split.....	8
2.2.3 Stock Repurchase.....	8
2.3 Managerial Considerations in Determining a Dividend Payout .....	8
2.3.1 Fund needs of the firm .....	9
2.3.2 Liquidity .....	9
2.3.3 Ability to borrow .....	9
2.3.4 Assessment of any valuation information.....	10
2.3.5 Control.....	10
2.3.6 Nature of stockholders .....	11
2.3.7 Restrictions in bond indenture or loan agreement.....	11
2.3.8 Inflation.....	11
2.4 Dividend Theories.....	11
2.4.1 Full Information Models--The Tax Factor .....	11
2.4.2 Models of Information Asymmetries .....	13
2.4.3 Behavioral Models .....	16
2.5 Determinants of dividend policy.....	19
CHAPTER THREE: METHODOLOGY .....	22
3.1 Research design .....	22
3.2 Population of the Study .....	22

3.3 Data Collection .....	22
3.4 Data Analysis.....	22
CHAPTER FOUR: DATA ANALYSIS AND FINDINGS.....	25
4.1 Introduction.....	25
4.2 Forms of Dividend Payout by Industry .....	25
4.3 Industry Influence on Dividend Payout Policies .....	25
4.3.1 Agricultural Industry.....	25
4.3.2 Finance and Investment Industry.....	27
4.3.3 Industrial and Allied.....	28
4.3.4 Commercial and Services .....	30
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	32
5.1 Summary of Findings .....	32
5.2 Conclusions.....	33
5.3 Recommendations.....	34
5.4 Limitations of the Study .....	35
5.5 Suggestions for Further Research .....	35
REFERENCES .....	36
APPENDICES.....	45
Appendix 1: NSE Equities:.....	45
Appendix 2: Summary of Working Schedules .....	48

## LIST OF TABLES

Table 1:	Model Summary (b) .....	25
Table 2:	ANOVA Table for Firms in the Agriculture Industry .....	26
Table 3:	Regression Coefficient for Agricultural Industry .....	26
Table 4:	Regression Statistics for Finance and Investment Industry.....	27
Table 5:	ANOVA Table for Finance and Investment Industry .....	28
Table 6:	Regression Coefficients for Finance and Investment Industry .....	28
Table 7:	Regression Statistics for Industrial and Allied Industry.....	29
Table 8:	ANOVA Table for Industrial and Allied Industry .....	29
Table 9:	Regression Coefficients for Industrial and Allied Industry .....	30
Table 10:	Regression Statistics for Commercial and Services Industry .....	30
Table 11:	ANOVA Table for Commercial and Services Industry .....	31
Table 12:	Regression Coefficients for Commercial and Services Industry .....	31

## ABSTRACT

This study sought to find out the forms of dividend payout of firms listed at the Nairobi Stock Exchange by industry and to establish the influence of industry on dividend payout policies of firms. This study was a relational survey. The population of interest in this study consisted of all the firms quoted at the Nairobi Stock Exchange (N.S.E). This study was limited to listed companies due to lack of readily available data from private companies. After thorough scrutiny of the available data in terms of the period covered by the study, 42 firms were finally used in the study. Dividend data was extracted from published reports of quoted companies. The data obtained from the secondary sources was analyzed using regression analysis. A modified version of the model developed by Rozeff was used to test for the presence of industry effects. In the model, dividend payout was the dependent variable and the independent variables were selected to surrogate for the transactions cost of external financing and the agency costs of external financing and the agency costs of outside equity. The data on dividend payout, past revenue growth, percentage of insider holdings and the number of stockholders were drawn from the company accounts as well as the data provided to the NSE by the companies.

In conclusion, the study found that cash was the only form of dividend which was paid out by these firms. Thus, in terms of industry, it is not possible to conclude that a particular form of dividend payout is preferred over the other since all the firms paid their dividends in the form of cash. As the study found, industry factors had a strong positive influence on dividend payout ratios in three industries namely agriculture, finance and investment, and industrial and allied. Industry factors had a weak positive influence on dividend payout ratios in the commercial and services industry. The study recommends that the management of various companies listed on the NSE take cognizance of the findings in this study as a starting point to understanding how industry factors influence the dividend payout ratios of their firms. The study also recommends that investors use this information to make better decisions in where to invest their funds after evaluating what their interests. These results should aid them in making decisions on which industries to invest in so as to reap better benefits in terms of dividends.



## CHAPTER ONE: INTRODUCTION AND MOTIVATION

### 1.0 Background of the Study

Dividends are per-share payments designated by company's board of directors to be distributed among shareholders. For preferred shares, it is generally a fixed amount. For common shares, the dividend varies with the fortunes of the company and the amount of cash on hand. It may be omitted if the business is poor or the directors withhold earnings to invest in plant and equipment. Since most closely held companies do not pay dividends, when using dividend capitalization valuers must first determine dividend paying capacity of a business. Dividend paying capacity based on average net income and on average cash flow is used (Deangelo et al, 2004).

To determine dividend paying capacity, near term capital needs, expansion plans, debt repayment, operation cushion, contractual requirements, past dividend paying history of a business and dividends of a comparable company should be investigated. After analyzing these factors, percentage of the net income or average cash flow that can be used for the payment of dividend can be estimated. What also must be determined is the dividend yield, which can best be determined by analyzing comparable companies. As with the price earnings ratio method, this usually produces a subjective result (Olson, 1994).

The stock exchange is part of the securities segment of the capital market. Investments that represent evidence of debt, ownership of a business, or the legal right to acquire or sell an ownership interest in a business are called securities. The most common types of securities are stocks, bonds and options. Securities markets are the mechanisms that allow suppliers and demanders of funds to make transactions. They also allow transactions to be made quickly and at a fair price (Feldstein and Green, 1983).

Dividends are relevant because they have informational value. Financial signaling theory implies that dividends may be used to convey information. Information, rather than dividends itself, affects share prices (Brigham and Gapenski, 1994). The payment of dividends conveys to shareholders that the company is profitable and financially strong. This in turn causes an upsurge in demand for the firm's shares causing a rise in their market

prices. When a firm changes its dividends policy, investors assume that it is in response to an expected change in the firm's profitability which will last long. An increase in payout ratio signals to shareholders a permanent or long term increase in firm's expected earnings. Accordingly, the prices of shares are affected by changes in dividends policy. This, therefore call for studies to be conducted in the area of dividend policy and how this policy affects market prices of shares.

Black (1976) in his famous paper 'the dividend puzzle' posed two questions: why do companies pay dividends and why do investors pay attention to dividends? Black says that the answer may be because dividends represent return to the investors at a risk or because companies pay dividends to reward existing shareholders and encourage others to buy new stocks at high prices. He postulates that investors pay attention to dividends because they represent a return on their investment or represents a chance to sell their shares at high prices in the future. He concludes that the answers are not so obvious. The harder one looks at the dividend picture, the more it sees like a puzzle with pieces that just don't fit together (Black, 1976).

Lintner's seminal work on dividend payout practices (1956) finds that managers believe that stockholders prefer stable dividends and that the market puts a premium on such stability. He hypothesizes that differences among firms in target payout ratios reflect judgments based on factors such as prospects for growth of the industry and the individual firm, cyclical movements of investment opportunities, and earnings prospects for the firm. Myers' (1984) description of managers' pecking order preferences for internal financing includes a link between dividend payout and factors such as investment opportunities and fluctuations in firm profitability. Empirical support for such a link is found in studies of the dividend payout practices of U.S. firms by McCabe (1979) for the late 1960s and early 1970s and by Rozeff (1982) for the late 1970s. Lintner also suggests that dividend policies have industry effects. While an industry effect may reflect correlation of factors such as investment opportunities, earnings stability, and internal funds availability among firms within the same industry (Lintner, 1956), Lintner seems to have had more in mind. He refers (p. 104, fn. 3) to dividend leadership as analogous to price leadership and wage leadership, thereby suggesting a competitive dimension of the dividend decision apart from other firm-specific variables. In

an earlier paper (1953, p. 252, fn. 60), Lintner cites the oil industry as an example of dividend leadership at work. He states that "Companies probably most generally follow the 'lead' of other companies in the same industry, but on occasion may be concerned with maintaining some sort of conformance to other companies whose securities are, investment-wise, close substitutes for the company's own securities, even though the other companies are in entirely different industries."

In their study of aggregate dividend behavior of U.S. firms, Marsh and Merton (1987, p. 4) also suggest that firms observe industry practice in the selection of their target payout ratios, although they do not test explicitly for its effect. In one of the few direct tests of the industry effect hypothesis, Michel (1979) finds statistically significant differences in dividend payout ratios among 13 different industries during the late 1960s to the mid-1970s. (The significantly different industries are not identified individually.) Michel tests only for firm size (in regard to firm-specific variables that may affect dividend payouts) and finds no significant effect. He suggests, however, (1979, p. 24) that investment opportunities within industries may account partially for the industry effect. Baker (1988) updates the Michel study using data from 1977 to 1981. He too finds support for industry effects on dividend payout ratios, but, like Michel, he does not control for other variables. McCabe's cross-section analysis of dividend payouts (dividends relative to sales as opposed to dividends relative to earnings) of U.S. firms from 1966 through 1973 includes variables intended to capture effects of investment opportunities, availability of funds, and the firm's operating and financial leverage as reflected in beta. He also includes dummy variables for two digits SIC industries. He does not report the regression coefficients or the significance of the industry dummies, however, so one cannot discern whether his sample of 112 firms shows support for an industry effect.

Rozeff (1979) analyzes dividend payout ratios for a cross-section of 1,000 unregulated U.S. firms from 1974 to 1980 with regard to firm-specific determinants. Casting the payout decision as a tradeoff between transaction costs and agency costs, his model includes variables intended to capture the effects of investment opportunities and earnings variability on dividend payout. In addition, it includes variables that serve as proxies for agency cost effects on dividend decisions. All of the variables are highly significant with the expected

signs, and the model accounts for nearly half of the variation in dividend payout ratios for his sample. Rozeff's analysis, which relies solely on firm-specific variables, does not account explicitly for potential industry differences. Thus, in the context of Rozeff's model, industries may provide measures of omitted variables influencing dividend policy that are not captured adequately by firm-specific variables.

### **1.1 The Nairobi Stock Exchange (NSE)**

A stock market is a place where securities are traded. These securities are issued by listed companies and by the government, with the aim of raising funds for different purposes such as to fund expansion for the former, and development and finance budget deficits for the latter. Common securities traded on a stock exchange include company shares, corporate bonds, and government debt in the form of treasury bonds (The NSE Hand book 2004 - 2005). The Nairobi Stock Exchange which was formed in 1954 as a voluntary organization of stock brokers is now one of the most active capital markets in Africa. The administration of the Nairobi Stock Exchange Limited is located on the 1st Floor, Nation Centre, Kimathi Street, Nairobi.

As a capital market institution, the Stock Exchange plays an important role in the process of economic development. It helps mobilize domestic savings thereby bringing about the reallocation of financial resources from dormant to active agents. Long-term investments are made liquid, as the transfer of securities between shareholders is facilitated. The Exchange has also enabled companies to engage local participation in their equity, thereby giving Kenyans a chance to own shares.

Companies can also raise extra finance essential for expansion and development. To raise funds, a new issuer publishes a prospectus which gives all pertinent particulars about the operations and future prospects\* and states the price of the issue. A stock market also enhances the inflow of international capital. They can also be useful tools for privatization programs. The Nairobi Stock Exchange is at present made up of eighteen stock broking firms. These members of the Nairobi Stock Exchange transact business mainly on the Nairobi market, with a limited proportion of business conducted in foreign securities

through overseas agents. The stock brokers act as financial advisers to their clients and also carry out their orders.

The Nairobi Stock Exchange deals in both variable income securities and fixed income securities. Variable income securities are the ordinary shares which have no fixed rate of dividend payable as the dividend is dependent upon both the profitability of the company and what the board of directors decides. The fixed income securities include Treasury and Corporate Bonds, preference shares, debenture stocks - these have a fixed rate of interest/dividend, which is not dependent on profitability.

The stock market consists of both the primary and secondary markets. In the primary or new issue market, shares of stock are first brought to the market and sold to investors. In the secondary market, existing shares are traded among investors.

## **1.2 Statement of the Problem**

Studies from other countries in both developing and developed economies have shown that there exists a relationship between the dividend policies firms adopt and the industry (Lintner, 1956; Rozeff, 1982; Marsh and Merton, 1987; and Baker, 1988). These studies have shown that industry has a great influence on the form of dividends companies pay.

In Kenya, most of the firms listed in the stock exchange pay dividends semiannually. There is no legal requirement that firms adopt a specific dividend policy schedule, however dividend distribution do face legal restrictions for instance that dividends should not be paid out of capital unless liquidating.

Karanja (1987) studied dividend practices of publicly quoted companies and found out that there are many reasons why firms pay dividends. One reason is lack of investment opportunities which promises adequate returns. Firm's cash position was the most important consideration of timing of dividends.

Onyango (1999) noted that shareholders tend to receive higher cash dividends after bonus issue. There was an increase in cash dividend of 10.23% after the issue of bonus shares

which was significantly significant.

Wairimu (2002) carried out a study to establish whether there exists a relationship between dividend and investment decisions since both compete for internally sourced funds and given that funds obtained by debt are very expensive and not available to all firms.

As can be observed from the foregoing discussion, no study has been done in Kenya to determine the effect of industry on what dividend policy firms choose to use. Besides, much attention has been drawn to the cash forms of dividends largely ignoring the other forms of dividends. Motivated by this gap in literature, the study seeks to determine the relationship between industry and dividend payout policies with particular reference to firms listed at the NSE: an emerging financial market currently experiencing enormous deepening and development (growth).

### **1.3 Objectives of the study**

The objectives of this study were:

- i. To find out the forms of dividend payout of firms listed at the Nairobi Stock Exchange by industry.
- ii. To establish the influence of industry on dividend payout policies of firms.

### **1.4 Significance of the study**

The findings of this study will be of interest to:

- i. The management of various companies listed on the NSE who can use these findings to understand how industry influences the dividend policies.
- ii. The investors can use this information to make better decisions in what firms to invest in if their interest is in the dividends companies pay.
- iii. The scholars and academics who can use this study as a basis for further research.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Dividend Payout

Firms use different dividend payout policies. The dividend payout policies are discussed below.

#### 2.1.1 Constant payout ratio

This is where the firm will pay a fixed dividend rate (e.g. 40% of earnings). The Dividend per Share would therefore fluctuate as the earnings per share changes. Dividends are directly dependent on the firm's earnings ability and if no profits are made then, no dividends are paid. This policy creates uncertainty to ordinary shareholders especially those who rely on dividend income and they might demand a higher required rate of return (Gitman, 1998).

#### 2.1.2 Constant amount per share

The dividend per share (DPS) is fixed in amount irrespective of the earnings levels. This creates certainty and is therefore preferred by shareholders who have a high reliance on dividend income. It protects the firm from periods of low earnings by fixing, DPS at a low level. This policy treats all shareholders by giving a fixed return. The DPS could be increased to a higher level if earnings appear relatively permanent and sustainable.

#### 2.1.3 Constant Dividend per share plus extra/surplus

Under this policy, a constant DPS is paid every year, however extra dividends are paid in years of supernormal earnings. It gives the firm flexibility to increase dividends when earnings are high and participate in supernormal earnings. The extra dividends are given in such a way that it is not perceived as a commitment by the firm to continue the extra dividend in the future. It is applied by the firms whose earnings are highly volatile e.g agricultural sector (Gitman, 1998).

#### 2.1.4 Residual dividend policy

Under this policy, dividends are paid out of earnings left over after investment decisions have been financed. Dividends will only be paid if there are no profitable investment

opportunities available. The policy is consistent with shareholders wealth maximization (Pandey, 2004).

## **2.2 Mode of Paying Dividends**

### **2.2.1 Cash and Bonus Issues**

For a firm to pay cash dividends, it should have adequate liquid funds. However, under conditions of illiquidity and financial constraints, a firm can pay stock dividends (Bonus issue). Bonus issue involves issue of additional shares for free (instead of cash) to existing shareholders in their shareholder's proportion. Stock dividends/Bonus issue involves capitalization of retained earnings and does not increase the wealth of shareholders. This is because retained earnings are converted to shares (Pandey, 1991).

### **2.2.2 Stock split and reverse split**

This is where a block of shares is broken down into smaller units (shares) so that the number of ordinary shares increases and their respective par value decreases at the stock split factor. Stock split is meant to make the shares of the company more affordable by low-income investors and increase their liquidity in the market (Brealey, Myers and Marcus, 1995).

### **2.2.3 Stock Repurchase**

The company can also buy back some of its outstanding shares instead of paying cash dividends. This is known as stock repurchase and share repurchased or bought back are called treasury stock. If some outstanding shares were repurchased, fewer shares would remain outstanding. Assuming repurchase does not adversely affect firm's earnings, E.P.S of share would increase. This would result in increase in market price per share (M.P.S) so that capital gains are substituted for dividends (Hirt, 1980). It is however important to note that stock repurchase is not legal in Kenya.

## **2.3 Managerial Considerations in Determining a Dividend Payout**

These are the various factors that firms in practice can and should analyze when approaching a dividend decision.



### **2.3.1 Fund needs of the firm**

The expected operating cash flows of the firm, expected future capital expenditures, any likely build-ups in receivables and inventories, scheduled reduction in debt, and anything that affects the cash position of the firm should be taken into account. The key is to determine the likely cash flows and cash position of a change in dividend. In addition to looking at expected outcomes, we should factor in business risk so that we may obtain a range of possible cash-flow outcomes.

The firm wishes to determine if anything is left over after servicing its fund needs, including profitable investment projects. In this regard, the firm should look at its situation over a reasonable number of future years, to iron out fluctuations. The likely ability of the firm to sustain dividends should be analyzed relative to the probability of distributions of possible future cash flow and cash position. On the basis of this analysis, the firm can determine its likely future residual funds (Van Horne, 1989).

### **2.3.2 Liquidity**

The liquidity of company is a prime consideration in many dividend decisions. As dividends represent cash outflow, the greater the cash position and overall liquidity of a company, the greater it's ability to pay a dividend. A company that is growing and profitable may not be liquid, for its funds may go into fixed assets and permanent current assets. Because management of such a company usually desires to maintain some liquidity cushion to give it flexibility and protection against uncertainty, it may be reluctant to jeopardize this position in order to pay a large dividend. The investment decision determines the rate of asset expansion and the firm's need for funds, and the financing decision determines the way in which, this need will be financed (Weston & Brigham, 1981).

### **2.3.3 Ability to borrow**

A liquid position is not the only way to provide for flexibility and protect against uncertainty. If a firm thereby has the ability to borrow on a comparatively short notice, it may be relatively flexible. The ability to borrow can be in the form of a line of credit or a revolving credit from a bank or simply the informal willing of a financial institution to extend credit. In addition, flexibility can come from the ability of a firm to go to the capital markets with a

bond issue. The larger and more established a company, the better its access to capital markets. The greater the ability to borrow, the greater is its ability to pay a cash dividend. With ready access to debt funds, management should be less concerned with the effect that the cash dividend has upon its liquidity (Van Horne, 1989).

### **2.3.4 Assessment of any valuation information**

Regression analysis involving similar companies may give some indication, even though studies on this line have statistical problems in addition to the troublesome job of trying to hold all else constant. As a result, it usually is difficult to make company-specific generalizations concerning the effect of dividends on stock market prices. Most companies look at the dividend payout ratios of other companies in the industry, particularly those having about the same growth. It may not matter that a company is out of line with similar companies but it will be conspicuous; and unusually a company should judge the informational effect of a dividend. What do investors expect? Here security analysts and security reports are useful. The company should ask itself what information it is conveying with its present dividend and what it should convey with a possible change in dividend (Helfert, 1966).

### **2.3.5 Control**

If a company pays substantial dividends it may need to raise capital at a latter time through sale of stock in order to finance profitable investment opportunities. Under such circumstances, the controlling interest of the company may be diluted if controlling stockholders do not or cannot subscribe for additional shares. These stockholders may prefer low dividends payout and the financing of the investment needs with retained earnings. Control can work two ways, however. When a company is being sought by another company or individuals, a low dividend payout may work to the advantage of the "outsiders" seeking control. The outsiders may be able to convince stockholders that the company is not maximizing shareholder wealth and that they (the outsiders) can do a better job. Consequently, companies in danger of being acquired may establish a high dividend payout in order to please stockholders (Weston & Brigham, 1981).

### **2.3.6 Nature of stockholders**

When a firm closely held, management usually knows the dividend desires of its stockholders and may act accordingly. If most stockholders are in high tax brackets and prefer capital gains to current income the firm can establish a low dividend payout. The low payout, of course, would be predicated upon having profitable investment opportunities for the retained earnings. The corporation with a large number of stockholders can judge their desires for dividends only in a market.

### **2.3.7 Restrictions in bond indenture or loan agreement**

The protective covenants in a bond indenture or loan agreement often include a restriction on payment dividends. The restriction is employed by the lenders to preserve the company's ability to service debt. Usually, it is expressed as a maximum percentage of cumulative earnings. When such a restriction is in force, it naturally influences the dividend policy of the firm. Sometimes the management of a company welcomes a dividend restriction imposed by lenders because it does not then have to justify stockholders the retention of earnings. It need only point to the restriction (Kolb & Demong, 1988).

### **2.3.8 Inflation**

Inflation also may have an influence upon dividend policy. With rising prices, funds generated from depreciation are not sufficient to replace or restore existing assets as they wear out or become obsolete. Consequently, a case can be made for retaining earnings simply to preserve the earning power of the firm. The decision must be based upon investment policy and valuation (Seitz, 1990).

## **2.4 Dividend Theories**

### **2.4.1 Full Information Models--The Tax Factor**

Tax-adjusted models surmise that investors require and secure higher expected returns on shares of dividend-paying stocks. The imposition of a tax liability on dividends causes the dividend payment to be grossed up to increase the shareholder's pre-tax return. Under capital asset pricing theory, investors offer a lower price for the shares because of the future tax liability of the dividend payment.

One consequence of the tax-adjusted model is the division of investors into dividend tax clienteles, an argument first proposed in the seminal work of Miller and Modigliani (1961). In later research, Modigliani (1982) finds that the clientele effect is responsible for only nominal alterations in portfolio composition rather than the major differences predicted by Miller (1977). Masulis and Truman (1988) model cash dividend payments as products of deferred dividend costs. Their model predicts that investors with differing tax liabilities will not be uniform in their ideal firm investment/dividend policy. As the tax liability on dividends increases (decreases), the dividend payment decreases (increases) while earnings reinvestment increases (decreases). Differences are minimized by segregation of investors into clienteles.

The model developed by Farrar and Selwyn (1967) assumes that investors maximize after-tax income. In a partial equilibrium framework, investors have two choices. Individuals choose the amount of personal and corporate leverage and also whether to receive corporate distributions as dividends or capital gains. This model contends that no dividends should be paid; rather, that share repurchase should be used to distribute corporate earnings.

The Farrar and Selwyn (1967) model is extended into a general equilibrium framework by Brennan (1970). In this setting, investors maximize their expected utility of wealth. Although the model is more robust, the predictions are similar to those of the Farrar and Selwyn model: equilibrium with dividend-paying firms is not consistent with a zero required return per unit of dividend yield.

Auerbach (1979a) develops a discrete-time, infinite-horizon model in which shareholders (as opposed to firm market value) maximize their wealth. If a capital gains/dividends tax differential exists, wealth maximization no longer implies firm market value maximization. Subsequently, Auerbach (1979b) posits that dividend distributions occur because of the consistent, long-term undervaluation of corporate capital. The undervaluation is the result of a dynamic process encompassing multiple periods of total reinvestment of all firm profits followed by firm returns less than the returns expected by investors.

Tax-adjusted models are criticized as incompatible with rational behavior; this criticism prompts Miller (1986) to suggest a strategy of tax sheltering of income by high-tax-bracket individuals. Individuals can refrain, of course, from purchasing dividend-paying shares to avoid the tax liability of these payments. Alternatively, using a strategy first advanced by Miller and Scholes (1978), shareholders can purchase dividend-paying stocks and receive the distributions, then simultaneously borrow funds to invest in tax-free securities.

The use of dividend-specific, personal tax shelters (for example, the existing dividend income exemption) to avoid tax liabilities is advanced by DeAngelo and Masulis (1980). They contend that the Miller and Scholes' (1978) tax shelter strategy is not sufficient to induce positive dividend payment at equilibrium. Fung and Theobald (1984) model tax shelters that are not based on interest charges and apply the theoretical results to French, German, British, and U.S. tax systems.

## **2.4.2 Models of Information Asymmetries**

### **Signaling Models**

The market imperfection of asymmetric information is the basis for three distinct efforts to explain corporate dividend policy. The mitigation of the information asymmetries between managers and owners via unexpected changes in dividend policy is the cornerstone of dividend signaling models. Agency cost theory uses dividend policy to better align the interests of shareholders and corporate managers. The free cash flow hypothesis is an ad hoc combination of the signaling and agency costs paradigms: the payment of dividends can decrease the level of funds available for perquisite consumption by corporate managers. Akerlof's (1970) model of the used car market as a pooling equilibrium in the absence of signaling activities illuminates the costs of information asymmetries. The generalization of Akerlof's model by Spence (1973, 1974) became the prototype for all financial models of signaling. The model defines a unique and specific signaling equilibrium in which a job seeker signals his/her quality to a prospective employer. Although the scenario is developed using the employment market, Spence contends that extension to a limited number of other settings (admissions procedures, promotions, and credit applications) is possible.

Bhattacharya (1979, 1980), Hakansson (1982), John and Williams (1985), Miller and Rock (1985), Bar-Yosef and Huffman (1986), Makhija and Thompson (1986), Ambarish et al.(1987), Ofer and Thakor (1987), Kumar (1988), Kale and Noe (1990), Rodriguez (1992), and many others offer signaling models of corporate dividend policy. The proponents of signaling theories believe that a corporate dividend policy used as a means of putting the message of quality across has a lower cost than other alternatives. The use of dividends as signals implies that alternative methods of signaling are not perfect substitutes (Asquith and Mullins, 1986).

### **Agency Cost**

The recognition of potential agency costs associated with the separation of management and ownership is not new; differences in managerial and shareholder priorities have been recognized for more than three centuries. Adam Smith (1937) adjudged the management of early joint stock companies to be negligent in many of their activities. These problems were especially prevalent in the British East Indies Company and attempts to monitor managers were largely unsuccessful because of inefficiencies and costs associated with shareholder monitoring (Kindleberger, 1984). Scott (1912) and Carlos (1992) question these assertions--while control and organization were less than ideal, the continued success and long life of the corporation imply generally sound managerial practices. Although some fraud no doubt existed, the majority of managerial activities coincided with shareholder desires.

Modern agency theory seeks to explain corporate capital structure as the result of attempts to minimize the costs associated with the separation of corporate ownership and control. Agency costs are lower in firms with high managerial ownership stakes because of the better alignment of shareholder and manager goals (Jensen and Meckling, 1976) and in firms with large block shareholders that are better able to monitor managerial activities (Shleifer and Vishney, 1986). Agency problems result from information asymmetries, potential wealth transfers from bondholders to stockholders through the acceptance of high-risk and high-return projects by managers, and failure to accept positive net present value projects and perquisite consumption in excess of the level consumed by prudent corporate managers (Barnea, Haugen, and Senbet, 1981).

Dividend policy influences these relations in two ways. Fama and Jensen (1983a, 1983b) espouse that potential shareholder and bondholder conflicts can be mitigated by covenants governing claim priority. These orderings can be circumvented by large dividend payments to stockholders. Debt covenants to minimize dividend payments are necessary to prevent bondholder wealth transfers to shareholders (John and Kalay, 1982). Although potentially substantial in precipitation of agency costs, its dividend policy is not a major source of bondholder wealth expropriation. In firms where dividend payouts are limited by bondholder covenants, dividend payout levels are still below the maximum level allowed by the constraints (John and Kalay, 1982).

The second way dividend policy affects agency costs is the reduction of these costs through increased monitoring by capital markets. Large dividend payments reduce funds available for perquisite consumption and investment opportunities and require managers to seek financing in capital markets. The efficient monitoring of capital markets reduces less-than-optimal investment activity and excess perquisite consumption and hence reduces the costs associated with ownership and control separation (Easterbrook, 1984).

### **The Free Cash Flow Hypothesis**

Prudent managers working in the shareholders' best interests should invest in all profitable opportunities. Management and owner separation affords corporate managers the temptation, however, to consume or otherwise waste surplus funds. The inefficient use of funds in excess of profitable investment opportunities by management was first recognized by Berle and Means (1932). Jensen's (1986) free cash flow hypothesis updated this assertion, combining market information asymmetries with agency theory. The funds remaining after financing all positive net present value projects cause conflicts of interest between managers and shareholders. Dividend and debt interest payments decrease the free cash flow available to managers to invest in marginal net present value projects and manager perquisite consumption. This combination of agency and signaling theory should better explain dividend policy than either theory alone, but the free cash flow hypothesis does a better job of rationalizing the corporate takeover frenzy of the 1980's (Myers, 1987 and 1990) than it does of providing a comprehensive and observable dividend policy.

### **2.4.3 Behavioral Models**

No paradigm discussed thus far completely explains observed corporate dividend behavior. Investor behavior is substantially influenced by societal norms and attitudes (Shiller, 1984). Unfortunately, this motivation has been ignored by financial theorists for the most part because of the difficulty of introducing investor behavior into traditional financial pricing models (Arbel, Carvell and Postnieks, 1988). According to Shiller (1984), including these influences in modeling efforts can enrich the development of a theory to explain the endurance of corporate dividend policy.

Ordinary investors are faced not with risk, but with uncertainty—a lack of concise judgment and sense of objective evidence (Knight, 1964). Social pressures can lead to errors in judgment and trading activities by shareholders that cannot be logically explained. These errors in judgment are only mistakes, not lapses of rational investment activity. Mass investor psychology profoundly influences aggregate market activity (Shiller, 1984). Dividend policy is inconsistent with wealth maximization of the shareholder and is better explained by the addition of a socioeconomic-behavior paradigm into economic models. Dividend payouts can be viewed as the socioeconomic repercussion of corporate evolution—the information asymmetries between managers and shareholders cause dividends to be paid to increase the attractiveness of equity issues (Frankfurter and Lane, 1992).

The systematic relation between industry type and dividend policy reported by Michel (1979) implies that managers are influenced by the actions of executives from competitive firms when determining dividend payout levels. Managers, realizing that shareholders desire dividends, pay or increase dividends to mollify investors (Frankfurter and Lane, 1992). Dividend payments to shareholders should help increase the corporation's stability by serving as a ritualistic reminder of the managerial and owner relationship (Ho and Robinson, 1992). As Frankfurter and Lane (1992) contend, dividends are partially a tradition and partially a method to allay investor anxiety.

### **Managerial Surveys**

Lintner (1956) surveyed corporate chief executive officers and chief financial officers and found that dividend policy is an active decision variable because managers believe that stable



dividends lessen negative investor reactions. The active determination of dividend policy implies that the level of retained earnings and savings is a dividend decision byproduct. Darling (1957), and Fama and Babiak (1968) find empirical support for Lintner's findings; dividends are a function of current and past profit levels, and expected future earnings, and are negatively correlated with changes in the level of sales. Current income remains the critical determinant of corporate dividend policy 25 years after Lintner's original survey (DeAngelo, DeAngelo, and Skinner, 1992).

Other factors not considered by Lintner (regulatory constraints, investment magnitude, debt and firm size) also affect dividend policy. Variations in dividend policy are primarily due to a combination of endogenous and exogenous elements (Dhrymes and Kurz, 1964). Harkins and Walsh (1971) find that shareholder dividend desires and management need of retained earnings for investment opportunities conflict. A compromise policy partially satisfying both parties is chosen. Managers consider current and expected earnings, dividend payment history, dividend level stability, cash flows and investment opportunities, and shareholder desires in their determination of the payout level.

Surveys of chief financial officers (CFO's) by Baker, Farrelly, and Edelman (1985) and Baker and Farrelly (1988) confirm the Lintner (1956) results. The CFO's cite the importance of dividend continuity, the belief that share prices are affected by dividend policy, and the difference in classification of regular and unusual cash flows as important determinants of dividend policy. Managerial views of dividend policy are essentially unchanged 30 years after Lintner's study; dividends are paid because shareholders expect continued dividend growth and managers believe investors want to receive dividends. Managers believe that dividend payments are necessary to maintain or increase share price and to attract new investors. Dividend payout policy is determined using criteria including sustainability, current firm profitability, future cash flow expectations, and industry norms.

### **Theoretical Behavioral Models**

Feldstein and Green (1983) model the corporate dividend decision as the last step in a process that evaluates inputs from five sources. First, dividend policy is a consequence of investor consumption needs. The tax liabilities from dividend payment are less than the

transaction costs of selling shares to provide income if earnings are retained. Second, the market value of retained earnings is less than the market value of dividends. Third, dividend payment is consistent with steady state growth and an optimal debt/equity ratio. Fourth, dividend payments are a byproduct of the separation of corporation owners and managers; dividend payments help to diminish the agency costs arising from separation of corporate owners and managers and are used for signaling activities. Finally, although asymmetric information and agency costs are present in the model, the paradigm is not dependent on these market imperfections. The involvement of shareholders with diverse tax liabilities and diversification goals in an equilibrium with uncertainty results in dividend payments.

Shefrin and Statman (1984) explain dividend preference by using the theory of self control (Thaler and Shefrin, 1981) and the descriptive theory of choice under uncertainty (Kahneman and Tversky, 1982). Information models are used to justify the presence of corporate dividends while the tax liability of dividends is used as a counter-argument. This model is also consistent with dividend clienteles.

Dividends and capital gains are not always perfect substitutes (even in a world without taxes and transaction costs) because of a lack of self-control to delay gratification (Thaler and Shefrin, 1981). In financial theory, dividends and capital gains have the same value; this is not the case in a world modeled using the theory of self-control. Dividend checks are appreciated more than capital gains and provide an automatic control device on spending levels (Thaler, 1980). Risky alternatives, costs, and payoffs are evaluated separately. The greater effects shown following dividend decreases also support this contention: losses are more significant than gains. Kahneman and Tversky (1982) posit that the sale of shares of stock causes more investor regret and anxiety than the spending of the cash received from dividend payments. A subsequent price rise of shares sold for income needs increases the shareholders' contrition. Clearly, in this model, capital gains and dividends are not perfect substitutes. Regret aversion can induce a preference for dividends through the use of a consumption rule based on the utilization of dividends, not invested capital. Dividend yields are positively correlated with the planned dissaving rate. If dissaving is positively related to age and negatively related to income, portfolio dividend yields will be positively correlated with age and negatively correlated with income.

Marsh and Merton (1986) develop a rational expectations model of dividend policy as management's response to permanent earnings. In equilibrium, dividend levels are determined using future earnings expectations. Using dividends as signals is incompatible with this model.

## **2.5 Determinants of dividend policy**

Review of research articles particularly on the determinants of corporate dividend policies has been made as follows:

Lintner (1956) conducted an empirical research over dividend pattern of 28 companies for the period of 1947-1953 with the help of regression analysis. The study concluded that a major portion of dividend of a firm would be expressed in terms of firm's desired dividend payment and target payout ratio.

Miller and Modigliani (1961) advanced the view of dividend policy in their most celebrated article "Dividend Policy Growth and the Valuation of Shares" that the value of firm depends solely on its earnings power and is not influenced by the manner in which its earnings are split between dividends and retained earnings.

Fama and Blasiak (1968) studied the determinants of dividend payments by individual firms during 1946-64. For this purpose, the study used the statistical techniques of regression analysis, simulations and prediction tests. The study concluded that net income seems to provide a better measure of dividend than either cash flow or net income and depreciation included as separate variable in the model.

Ambarish et al. (1987) examined signaling equilibrium with dividends and new stock issues. A major implication of this paper is that since the tax on dividends is not significant, the dividend itself may not be an economical signal. By combining the dividend signal with other signals such as debt or investment changes, the firm may be able to obtain a less-costly signaling-mix.

Kim and Viswanath (1992) studied the influence of transaction costs and agency costs on dividend payout of companies. The cross-sectional tests of the models performed on a sample of 357 industrial companies in 1979-1981 related dividend payout ratios to explanatory variables such as the fraction of equity held by insiders, past and expected future growth of the firm, the firm's beta, the total risk of the firm, the number of shareholders of the firm and the research and development expenditure of the firm. The results of the study indicated that transaction costs and agency costs are likely to influence company's dividend policy.

Constas (1994) examined the relationship between earnings, dividend declarations and investor returns. The empirical results reported suggest that most of the information contained in dividends, which is useful to financial markets, is also contained in accounting earnings. There does appear to be some useful information in dividends that is not contained in accounting earnings.

Using a multi-year sample of publicly traded non-financial firms in Thailand, Connelly (2007) found that firms' ownership characteristics shape dividend payout policy. The results are from an emerging market, which features concentrated, family-dominated corporate ownership structures. This study uses a measure of financing constraint to explain observed payout ratios. The dividend payout ratios of widely-held firms and firms controlled by families are found to have an opposite relation to the financing constraint measure. For widely-held firms with no dominant owner, the payout ratio is inversely related to the level of financing constraint. In contrast, payouts of family-controlled firms rise as the level of financing constraint rises. The results show that dividend policy reflects firms' ownership structures and the influence of firms' controlling shareholder. The results also suggest evidence of expropriation of minority shareholders at the hands of a dominant owner.

Sharma and Rao (1992) attempted to identify the signalling aspects of corporate dividend policy. They included that the dividends are perceived as signals from (I) Management's point of view, (II) Performance point of view, and also (III) market's point of view. The empirical results indirectly support the semi-strong form of efficient market hypothesis.

Karak (1993) examined the policy decision regarding divisible profit and dividend decision. The study concludes that management in India, as a rule, has followed conservative policies with regard to dividends. There is an increasing tendency on their part to finance the expansion out of internal resources as far as possible. It may be mentioned that no similar study has so far been made in Kenya. That is why; no review has been included in this study.

As can be seen from the foregoing discussion, research in the area of dividend payout and industry influence has been done in the developed as well as developing nations but not has been done specifically on the Kenyan stock market. As such, it is important that this relationship be explored to determine whether the industry a firm belongs to has an influence on the dividend policy it chooses to use. This relationship has been found in other markets and it will be interesting to ascertain whether this is also true for the Kenyan stock market.

## **CHAPTER THREE: METHODOLOGY**

### **3.1 Research design**

This study was a relational survey. It sought to establish the effect that industry has on the dividend payout ratios of firms listed on the NSE.

### **3.2 Population of the Study**

The population of interest in this study consisted of all the firms quoted at the Nairobi Stock Exchange (N.S.E). This study was limited to listed companies due to lack of readily available data from private companies. All the firms listed were targeted for the study. But after thorough scrutiny of the available data in terms of the period covered by the study, 42 firms were finally used in the study. The firms in Alternative Investment Market Segment (AIMS) were decomposed into their respective industries as indicated in Appendix 1.

### **3.3 Data Collection**

This study was facilitated by the use of secondary data. Dividend data was extracted from published reports of quoted companies. This information was obtained at the N.S.E library and from the company libraries. The period of study cover 5 years from 2002-2006. Five year period was selected because similar studies in other markets take a five year range for analysis purpose. The period 2002 to 2006 is justified because any period before 2002 may not be relevant to the current situation. This period is current and the events during this period shed light on the actual activities occurring in the market at present.

### **3.4 Data Analysis**

The data obtained from the secondary sources was analyzed using regression analysis. This was done on the basis of industries as all firms were grouped into specific industries. The sectors as given by the NSE were regrouped into the specific industries. A modified version of the model developed by Rozeff was used to test for the presence of industry effects. In the model, dividend payout was the dependent variable and the independent variables were selected to surrogate for the transactions cost of external financing and the agency costs of external financing and the agency costs of outside equity. The data on dividend payout, past revenue growth, percentage of insider holdings and the number of stockholders were drawn

from the company accounts as well as the data provided to the NSE by the companies. The regression model used is presented below.

$$PAY = \alpha - \beta_1 INS + \beta_2 STOCK - \beta_3 GROW - \beta_4 BETA$$

Where

$\alpha$ ,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$  are constants.

PAY = Average payout ratio, 2002 to 2006

INS = Percentage of common stock held by insiders

STOCK = natural logarithm number of shareholders

GROW = average growth rate of revenues, 2002 to 2006

BETA = beta coefficient of stock

PAY is the dependent variable in this model. PAY depicts the dividend payout policy in this study. It is measured as the average dividend payout ratio for the five year period.

INS means insider. It depicts the common stock held by insiders such as directors, managers or employees. It is measured as the percentage of stock (shares) that are held by the insiders. It is hypothesized that as outside equity holders own a larger share of equity, they will demand a higher dividend as a part of the optimum monitoring package. Hence, one variable included in the model is the percentage of stock held by insiders. The prediction is that the dividend payout will be negatively related to the percentage of stock held by insiders.

STOCK in this model depicts the number of shareholders in a firm. In this model, stock will be measured as the natural logarithm of the number of shareholders in a firm for the period under study. The fraction of stock held by outsiders may not be the only determinant of dividend demand. If this fraction were held by fewer shareholders, their ownership will be more concentrated and may easily influence insider behavior, thereby reducing agency costs and leading to a lower optimal dividend payout. Hence, dispersion of ownership among outside shareholders may influence the dividend decision, with more dispersion leading to higher dividends. To measure ownership dispersion, the number of common shareholders is

used. The prediction is that the dividend payout is positively related to the number of shareholders in the firm.

GROW depicts the variable for the growth of the firm. It is measured as the average growth of revenues for the period of study. The reasoning behind the choice of this variable is straightforward. If past growth has been rapid, other things being constant, then the firm has required funds for investment to create the sales. In this case, the firm would tend to retain funds to avoid external financing with attendant costs. Hence, it is hypothesized that dividend payout ratio is negatively related to past growth of revenues of the firm.

BETA is the independent variable that depicts the beta coefficient for stock. It shows the risk factor of company stocks. It is hypothesized that if a firm has higher operating and financial leverage, other things being constant, the firm will choose a lower dividend policy to lower its cost of external financing. A natural surrogate for operating and financing leverage is therefore the firm's beta coefficient –the covariance of its stock return with the market return divided by the variance of the market return. Beta is higher when a firm has higher operating and financial leverage. It is hypothesized here that the dividend payout ratio is negatively related to the firm's beta coefficient.

To find out whether or not industry effects are present in the model, the residuals of the model across all firms were examined. The data was entered into the regression in order of industry. If there is any industry effect, they manifested themselves by nonrandom residuals, that is, a clustering of residuals of the same sign within each industry group. This produced non-random residuals. A Durbin-Watson test was applied cross-sectional. The computed Durbin-Watson statistic indicated whether there is substantial degree of randomness in the cross-section residuals taken as a group.



## CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

### 4.1 Introduction

This chapter presents the results of the study as was analyzed from the model provided in chapter three. The chapter is organized as follows: the forms of dividend payout used in the industry are first provided. This is followed by in-depth explanations on the results of industry influence on dividend payout policies by industry.

### 4.2 Forms of Dividend Payout by Industry

The study found that for the entire period of study, the firms under survey in all the industries as were decomposed paid cash as dividends. This was the only form of dividend which was paid out by these firms. Thus, in terms of industry, it is not possible to conclude that a particular form of dividend payout is preferred over the other since all the firms paid their dividends in the form of cash.

### 4.3 Industry Influence on Dividend Payout Policies

This section presents the results of the study on the influence of industry on dividend payout policies of firms listed on the NSE.

#### 4.3.1 Agricultural Industry

In the agricultural industry, 7 firms had all the information required and were therefore used in the analysis. The Pearson product moment of correlation indicates that industry features of beta, insider, stock, and growth have a very strong positive influence on the dividend payout ratio of firms in the agricultural industry. The R was found to be 0.813 which indicates that 66.1% of the variation in dividend payout ratios of firms in this industry is as a result of industry influence. This analysis is summarized in Table 1.

**Table 1: Model Summary (b)**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.813(a)	.661	.209	1.04837	2.203

a Predictors: (Constant), BETA, INSIDER, STOCK, GROWTH

b Dependent Variable: PAY OUT RATIO

The residuals presented in the ANOVA table in Table 2 below shows that the mean regression residual has a positive sign of 1.099. This indicates that there is a tendency for the firms in this industry to have a positive sign.

**Table 2: ANOVA Table for Firms in the Agriculture Industry**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.430	4	1.608	1.463	.393(a)
Residual	3.297	3	1.099		
Total	9.728	7			

Predictors: (Constant), BETA, INSIDER, STOCK, GROWTH

Dependent Variable: PAY OUT RATIO

In terms of the specific way in which the industry factors influence dividend payout ratios in this industry, the study found that STOCK, GROWTH, and BETA negatively influence dividend payout ratios. INSIDER positively influences dividend payout ratios. This can be observed from their beta values in the standardized coefficients in Table 3.

**Table 3: Regression Coefficient for Agricultural Industry**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.248	2.123		2.472	.090
INSIDER	.703	2.685	.125	.262	.810
STOCK	-1.286	.633	-.811	-2.031	.135
GROWTH	-6.969	10.923	-.304	-.638	.569
BETA	-.381	.222	-.687	-1.717	.184

Dependent Variable: PAY OUT RATIO

The results for GROWTH and BETA variables in Table 3 confirm the available information that they have a negative influence on dividend payout ratios. However, the results for INSIDER and STOCK contravene the earlier studies. Previous studies have shown that when the percentage of common stock held by insiders is more than that held by outsiders, the dividend payout ratio is negatively influenced. This is not the case in this study as the beta coefficient shows that it has a positive influence on dividend payout ratio. An explanation for this variation may be that most of the firms in this industry (6 out of 7) did not have information relating to what percentage of stock was held by insiders. Therefore, the results indicate that as most of the stock is held by outsiders, the dividend payout ratio is positively influenced.

#### 4.3.2 Finance and Investment Industry

The study used 8 firms in this industry because they had all the information provided and necessary to fulfill the objectives of this study. In this industry, the study found that there is a strong positive correlation between industry variables and dividend payout ratio. As summarized in Table 4, 58.5% of the variation in dividend payout ratios is as a result of industry factors.

**Table 4: Regression Statistics for Finance and Investment Industry**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.765(a)	.585	.171	.19700	2.083

Predictors: (Constant), BETA, INSIDER, STOCK, GROWTH

Dependent Variable: PAY OUT RATIO

The ANOVA table in Table 5 below indicates that the mean residual is 0.039 which is a positive sign. It can therefore be concluded that the firms in this industry have positive residual signs.

**Table 5: ANOVA Table for Finance and Investment Industry**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	.219	4	.055	1.412	.373(a)
Residual	.155	4	.039		
Total	.374	8			

a Predictors: (Constant), BETA, INSIDER, STOCK, GROWTH

b Dependent Variable: PAY OUT RATIO

It was also established that INSIDER and STOCK had a negative influence on dividend payout ratios. The results for stock are inconsistent with prior studies which posit that STOCK positively influences dividend payout ratio. The results for the effect of other variables such as GROW and BETA on PAY also deviate from prior studies as these have been known to have a negative influence on PAY yet they are found to affect dividend payout ratios positively in this study. The summary of these results are shown in Table 6.

**Table 6: Regression Coefficients for Finance and Investment Industry**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.259	.421		.616	.571
INSIDER	-12.196	23.134	-.213	-.527	.626
STOCK	-.014	.107	-.047	-.129	.904
GROWTH	.132	.489	.116	.270	.800
BETA	.036	.020	.708	1.820	.143

Dependent Variable: PAY OUT RATIO

#### 4.3.3 Industrial and Allied

For the industrial and allied industry, 11 firms had all the information required to perform this analysis. These were therefore used in the study. The study found that there is a moderately strong positive correlation between industry factors and dividend payout ratios.

As shown in Table 7 below, the  $R^2$  indicates that industry factors account for 34.4% of the variance in dividend payout ratios.

**Table 7: Regression Statistics for Industrial and Allied Industry**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.587(a)	.344	-.030	.60531	2.587

a Predictors: (Constant), BETA, STOCK, INSIDER, GROWTH

b Dependent Variable: PAY OUT RATIO

The mean residual provided in Table 8 below shows that the firms in this industry have positive residual signs attesting to the fact that industry has an influence on their dividend payout ratios.

**Table 8: ANOVA Table for Industrial and Allied Industry**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.347	4	.337	.919	.503(a)
Residual	2.565	7	.366		
Total	3.912	11			

Predictors: (Constant), BETA, STOCK, INSIDER, GROWTH

Dependent Variable: PAY OUT RATIO

The study also established that for this industry, other than STOCK, all other variables' effects on PAY are not consistent with prior studies. All the industry factors here, as shown in Table 9, positively influence dividend payout ratios. This is a deviation from prior studies that have shown that it is only STOCK that positively influences PAY. All other industry factors have been shown in prior studies as influencing PAY negatively.

**Table 9: Regression Coefficients for Industrial and Allied Industry**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-2.033	1.941		-1.047	.330
INSIDER	1.101	1.370	.272	.804	.448
STOCK	.547	.424	.531	1.290	.238
GROWTH	.416	.470	.358	.885	.406
BETA	.031	.057	.188	.544	.603

Dependent Variable: PAY OUT RATIO

#### 4.3.4 Commercial and Services

The study used 16 firms in this industry as these had full information available for the entire period covered by the study. The regression analysis to test the effect of industry factors on dividend payout ratios in the commercial and services industry for firms listed on the NSE indicates that there is a weak positive correlation between industry factors and dividend payout ratios. As shown in Table 10, the Pearson product moment of correlation is 0.226 which indicates that the industry factors account for only 5.1% of the variance in dividend payout ratios in this industry.

**Table 10: Regression Statistics for Commercial and Services Industry**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.226(a)	.051	-.265	.41971	1.581

Predictors: (Constant), BETA, INSIDER, GROWTH, STOCK

Dependent Variable: PAY OUT RATIO

The residual mean however shows that the residuals for firms in this industry are positive. This is presented in the ANOVA table as provided in Table 11 below.

**Table 11: ANOVA Table for Commercial and Services Industry**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	.114	4	.028	.161	.954(a)
Residual	2.114	12	.176		
Total	2.228	16			

Predictors: (Constant), BETA, INSIDER, GROWTH, STOCK

Dependent Variable: PAY OUT RATIO

The coefficients summarized in Table 12 below show that all the industry factors other than GROW have a positive influence on dividend payout ratios. This does not auger well with prior studies. The results for GROW and STOCK are consistent with prior studies while INSIDER and BETA are not consistent with prior studies. These factors should have a negative influence on dividend payout ratios.

**Table 12: Regression Coefficients for Commercial and Services Industry**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.434	.669		.649	.529
INSIDER	.685	2.375	.090	.289	.778
STOCK	.022	.162	.044	.136	.894
GROWTH	-.031	.775	-.012	-.040	.969
BETA	.012	.017	.219	.717	.487

Dependent Variable: PAY OUT RATIO

## CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Summary of Findings

The study found that for the entire period of study, the firms under survey paid cash as dividends. In the agricultural industry, 7 firms had all the information required and were used in the analysis. The Pearson product moment of correlation indicates that industry factors of beta, insider, stock, and growth have a very strong positive influence on the dividend payout ratio of firms in the agricultural industry. The results indicate that 66.1% of the variation in dividend payout ratios of firms in this industry is as a result of industry influence. The residuals show that the mean regression residual has a positive sign of 1.099. This indicates that firms in this industry to have a positive sign. The study found that STOCK, GROWTH, and BETA negatively influence dividend payout ratios. INSIDER positively influences dividend payout ratios.

In the Finance and Investment Industry, 8 firms were used because they had all the information necessary to fulfill the objectives of this study. The study found that there is a strong positive correlation between industry variables and dividend payout ratio. The study found that 58.5% of the variation in dividend payout ratios in this industry is as a result of industry factors. The mean residual for this industry is 0.039. It was also established that INSIDER and STOCK had a negative influence on dividend payout ratios. Other factors were found to have a positive influence on PAY.

For the industrial and allied industry, 11 firms were used in the study. The study found that there is a moderately strong positive correlation between industry factors and dividend payout ratios. The  $R^2$  indicates that industry factors account for 34.4% of the variance in dividend payout ratios. The mean residual shows that the firms in this industry have positive residual signs attesting to the fact that industry has an influence on their dividend payout ratios. All the industry factors were found to have a positive influence on dividend payout ratios.

The study used 16 firms in the Commercial and Services Industry as these had full information available for the entire period covered by the study. The regression analysis to



test the effect of industry factors on dividend payout ratios indicates that there is a weak positive correlation between industry factors and dividend payout ratios. The study found that the industry factors account for only 5.1% of the variance in dividend payout ratios in this industry. The residual mean however shows that the residuals for firms in this industry are positive. The study found that all the industry factors other than GROW have a positive influence on dividend payout ratios.

## 5.2 Conclusions

This study sought to identify the forms of dividend policies preferred in various industries. The study found that cash was the only form of dividend which was paid out by these firms. Thus, in terms of industry, it is not possible to conclude that a particular form of dividend payout is preferred over the other since all the firms paid their dividends in the form of cash.

The study also sought to establish the effect of industry on dividend payout ratios for firms listed on the NSE. As the study found, industry factors had a strong positive influence on dividend payout ratios in three industries namely agriculture, finance and investment, and industrial and allied. Industry factors had a weak positive influence on dividend payout ratios in the commercial and services industry.

The results for GROWTH and BETA variables for the agriculture industry confirm prior studies that they have a negative influence on dividend payout ratios. However, the results for INSIDER and STOCK contravene the earlier studies. Previous studies have shown that when the percentage of common stock held by insiders is more than that held by outsiders, the dividend payout ratio is negatively influenced. This is not the case in this study as the beta coefficient shows that it has a positive influence on dividend payout ratio. An explanation for this variation may be that most of the firms in this industry (6 out of 7) did not have information relating to what percentage of stock was held by insiders. Therefore, the results indicate that as most of the stock is held by outsiders, the dividend payout ratio is positively influenced.

It was also established that for the finance and investment industry, INSIDER and STOCK had a negative influence on dividend payout ratios. The results for STOCK are inconsistent with prior studies which posit that STOCK positively influences dividend payout ratio. The results for the effect of other variables such as GROW and BETA on PAY also deviate from prior studies as these have been known to have a negative influence on PAY yet they are found to affect dividend payout ratios positively in this study.

The study also established that for the Industrial and Allied industry, other than STOCK, all other variables' effects on PAY are not consistent with prior studies. All the industry factors positively influence dividend payout ratios. This is a deviation from prior studies that have shown that it is only STOCK that positively influences PAY. All other industry factors have been shown in prior studies as influencing PAY negatively.

The study found that for the commercial and services industry, all the industry factors other than GROW have a positive influence on dividend payout ratios. This does not auger well with prior studies. The results for GROW and STOCK are consistent with prior studies while INSIDER and BETA are not consistent with prior studies. These factors should have a negative influence on dividend payout ratios.

### **5.3 Recommendations**

The study recommends that the management of various companies listed on the NSE take cognizance of the findings in this study as a starting point to understanding how industry factors influence the dividend payout ratios of their firms.

The study also recommends that investors use this information to make better decisions in where to invest their funds after evaluating what their interests. These results should aid them in making decisions on which industries to invest in so as to reap better benefits in terms of dividends.

#### **5.4 Limitations of the Study**

The study only covered those firms listed at the NSE and whose data for the period of the study was available. Thus, the applicability of the findings to other firms may be limited by this scope and more so to public quoted firms and not to privately owned companies.

Further, it was difficult getting some of the data from both the CMA and the NSE on the listed firms to be surveyed as some of the data was not kept nor updated by the two authorities. Thus, some of the information had to be requested from the companies studied.

#### **5.5 Suggestions for Further Research**

Further suggestions and or recommendation is to scholars and academicians who can use this research as a guide and foundation for further research and especially for both public and private companies in future to compare the findings and conclusions to ascertain and confirm the current findings. Such further research will unearth the scenario in both public and private firms to enhance further future informed comparisons and conclusions.

UNIVERSITY OF NAIROBI  
LOWER KABETE LIBRARY

## REFERENCES

- Akerlof, G. (1970) "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," *The Quarterly Journal of Economics*, vol. 84, p. 488-500
- Ambarish, R., K. John, and J. Williams (1987) "Efficient Signaling with Dividends and Investments," *Journal of Finance*, 42, p. 321 – 343
- Arbel, A., S. Carvell and E. Postniaks (1988) "The Smart Crash of October 19th," *Harvard Business Review*, vol. 66, p. 124-136
- Asquith, P. and D. Mullins (1986) "The impact of Initiating Dividends and Stockholders' Wealth," *Journal of Business*, vol. 86, p. 77-96
- Auerbach, A.J. (1979b) "Wealth Maximization and the Cost of Capital," *The Quarterly Journal of Economics*, vol. 93, p. 433-446
- Auerbach, A.J., (1979a) "Share Valuation and Corporate Equity Policy," *Journal of Public Economics*, vol. 11, p. 291-305
- Baker, H.K and G.E. Farrelly (1988) "Dividend Achievers: A Behavioral Perspective," *Akron Business and Economic Review*, vol. 19, p. 79-92
- Baker, H.K.(1988) "The relationship Between Industry Classification and Dividend Policy," *Southern Business Review*, p. 1-8
- Baker, H.K., G.E. Farrelly and R.B. Edelman (1985) "A Survey of Management Views on Dividend Policy," *Financial Management*, vol. 14, p. 78-84
- Barnea, A., R.A. Haugen and L.W. Senbet (1981) "Market Imperfections, Agency Problems, and Capital Structure: A Review," *Financial Management*, vol. 10, p. 7-22
- Bar-Yosef, S. and L. Huffman (1986) "The Information Content of Dividends: A Signalling Approach," *Journal of Financial and Quantitative Analysis*, vol. 21, p. 47-58

- Benartzi, S., R. Michaely, and R. Thaler (1997) "Do changes in Dividends Signal the Future or the Past?" *Journal of finance*, vol. 52, p. 1007-1034.
- Berle, A.A. and G.C. Means (1932) *The Modern Corporation and Private Property*, New York: The MacMillan Company
- Bhattacharya, S. (1979) "Imperfect Information, Dividend Policy, and "the Bird in the Hand" Fallacy," *Bell Journal of Economics*, vol. 10, p. 259-270
- Bhattacharya, S. (1980) "Nondissipative Signaling Structures and Dividend Policy," *The Quarterly Journal of Economics*, vol. 95, p. 1-24
- Black, F., (1976) The dividend puzzle, *Journal of Portfolio Management*, 2, pp. 5-8
- Brealey, R.A., S.C. Myers, and A.J. Marcus (1995) *Fundamentals of Corporate Finance*, New York: McGraw-Hill Book Company
- Brennan, M.J. (1970) "Taxes, Market Valuation, and Corporation Financial Policy," *National Tax Journal*, vol. 23, p. 417-427.
- Brigham, E.F. and L.C. Gapenski (1994) *Financial Management: Theory and Practice*, Hinesdale, IL: Dryden Press
- Brittain J.A (1966), *Corporate Dividend Policy*, Brooking Institution, Washington D.C., U.S.A
- Carlos, A.M. (1992) "Principal-Agent Problems in Early Trading Companies: A Tale of Two Firms," *The American Economic Review*, vol. 82, p. 140-145.
- Connelly, J.T. (2007) *Ultimate Owners, Financial Constraints, and the Influence over Dividend Policy: Evidence from Thailand*, *Research Thesis*, Faculty of Commerce and Accountancy, Chulalongkorn University, Bangkok, Thailand
- Darling, P.G. (1957) "The Influence of Expectations and Liquidity on Dividend Policy," *Journal of Political Economy*, vol. 65, p. 209-224.

DeAngelo, H. and L. DeAngelo (1990) "Dividend Policy and Financial Distress: An Empirical Investigation of Troubled NYSE Firms," *The Journal of Finance*, vol. 55, p. 1415-1431.

DeAngelo, H. and R.W. Masulis (1980) "Leverage and Dividend Irrelevancy under Corporate and Personal Taxation," *The Journal of Finance*, vol. 35, p. 453-464

DeAngelo, H., and D. Skinner (1996) "Reversal of Fortune: Dividend Signaling and the Disappearance of Sustained Earnings," *Growth, Journal of Financial Economics*, Vol.40, p. 341-7

Deangelo, H., Deangelo, L., and D. Skinner, D.J. (2004) "Are Dividends Disappearing? Dividends Concentration and the Consolidation of the Earnings," *Journal of Financial Economics*, Vol.72, p.425-456

DeAngelo, H., L. DeAngelo and D.J. Skinner (1992) "Dividends and Losses," *The Journal of Finance*, vol. 57, p. 1837-1863.

DeAngelo, H., L. DeAngelo and D.J. Skinner (1996) "Reversal of Fortune: Dividend Signaling and the Disappearance of Sustained Earnings Growth." *Journal of Financial Economics*, vol. 40, p. 341-371

DeAngelo, H., L. DeAngelo and D.J. Skinner (2000) "Special Dividends and the Evolution of Dividend Signaling," *Journal of Financial Economics*, vol. 57, p. 309-354

Dhrymes, P.J. and M. Kurz (1964) "On the Dividend Policy of Electric Utilities," *The Review of Economics and Statistics*, vol. 46, p. 76-81

Discussion Papers 719R)

Eades K.M., (1982) "Empirical Evidence on Dividends as a Signal of Firm Value," *Journal of Financial and Quantitative Analysis*, vol. 17, p. 471-500

Eades, K., P. Hess, and E. Kim, (1985) "Market Rationality and Dividend Announcements," *Journal of Financial economics*, vol. 15, p. 581-604

- Easterbrook, F.H. (1984) "Two Agency-Cost Explanations of Dividends," *The American Economic Review*, vol. 74, p. 650-659
- Fama, E., French, K., (2001) "Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?" *Journal of Financial Economics*, Vol. 60, p. 3-43
- Fama, E.F. and H. Babiak (1968) "Dividend Policy: An Empirical Analysis," *Journal of American Statistical Association*, vol. 63, p. 1132-1161.
- Fama, E.F. and M.C. Jensen (1983a) "Separation of Ownership and Control," *Journal of Law & Economics*, vol. 26, p. 301-325
- Fama, E.F. and M.C. Jensen (1983b) "Agency Problems and Residual Claims," *Journal of Law & Economics*, vol. 26, p. 327-349
- Farrar, D.E. and L.L. Selwyn (1967) "Taxes, Corporate Financial Policy and Return to Investors," *National Tax Journal*, vol. 20, p. 444-462
- Feldstein, M.S. and J. Green (1983) "Why Do Companies Pay Dividends?," *The American Economic Review*, vol. 73, p. 17-30
- Frankfurter, G.M. and W.R. Lane (1992) "The Rationality of Dividends," *International Review of Financial Analysis*, vol. 1, p. 115-129.
- Fung, W.K. H. and M.F. Theobald (1984) "Dividends and Debt Under Alternative Tax Systems," *Journal of Financial and Quantitative Analysis*, vol. 19, p. 59-72
- Gitman L.J. (1998) *Principles of Managerial Finance*, Addison-Wesley, Mexico City, U.S.A
- Hakansson, N.H (1982) "To Pay or Not to Pay Dividend," *The Journal of Finance*, vol. 37, p. 415-428
- Harkins, E.P. and F.J. Walsh, Jr. (1971) *Dividend Policies and Practices*, New York: The Conference Board, Inc.
- Helfert E. (1966) *Valuation, Concepts and Practice*, Wadsworth Publishing co., Inc, Belmont, California, U.S.A

Hirt, G., (1980) *Fundamentals of Investment Management*, Richard, Irwin, Homewood, Illinois U.S.A

Ho, K. and C. Robinson (1992) *Dividend Policy Is Relevant in Perfect Markets*, Unpublished working paper.

Jensen, M.C. (1986) "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers," *The American Economic Review*, vol. 76, p. 323-329

Jensen, M.C. and W.H. Meckling (1976) "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics*, vol. 3, p. 305-360

John, K. and A. Kalay (1982) "Costly Contracting and Optimal Payout Constraints," *The Journal of Finance*, vol. 37, p. 457-470

John, K. and J. Williams (1985) "Dividends, Dilution, and Taxes: A Signalling Equilibrium," *The Journal of Finance*, vol. 40, p. 1053-1070

Kahneman, D. and A. Tversky (1982) "The Psychology of Preferences," *Scientific American*, vol. 246, p. 167-173

Kale, J.R. and T.H. Noe (1990) "Dividends, Uncertainty, and Underwriting Costs under Asymmetric Information," *The Journal of Finance*, vol. 13, p. 265-277

Karanja J., (1987) *The Dividend Practices of Publicly Quoted in Kenya*, Unpublished MBA Thesis, University of Nairobi

Kim, Y.K. and P. V. Viswanath (1992) *Financing Slack, Investment Opportunities and Market Reaction to Dividend Changes*, Unpublished working paper

Kindleberger, C.P. (1984), *A Financial History of Western Europe*, London: George Allen & Unwin

Knight, F.H. (1964) *Uncertainty and Profit*, London: Augustus M. Kelley, Bookseller

Kolb & Demong (1988), *Principles of Financial Management*, BPI Irwin, Homewood, Illinois, U.S.A



- Kumar, P. (1988) "Shareholder-Manager Conflict and the Information Content of Dividends," *The Review of Financial Studies*, vol. 1, p. 111-136
- Lintner, J., (1953) "The Determinants of Corporate Savings," *Savings in the Modern Economy*, Minneapolis: University of Minnesota Press
- Lintner, J., (1956) "Distribution of Incomes of Corporations Among Dividends, Retained Earnings and Taxes," *American Economic Review*, p. 97-113
- Makhija, A.K. and H.E. Thompson (1986) "Some Aspects of Equilibrium for a Cross-Section of Firms Signaling Profitability with Dividends: A Note," *The Journal of Finance*, vol. 41, p. 249-253
- Marsh, T.A. and R.C. Merton (1986) "Dividend Variability and Variance Bounds Tests for the Rationality of Stock Market Prices," *The American Economic Review*, vol. 76, p. 483-498
- Marsh, T.A. and R.C. Merton (1987) "Dividend Behavior for the Aggregate Stock Market," *The Journal of Business*, vol. 60, p. 1-40
- Marsh, T.A., and R.C. Merton (1987) "Dividend Behavior for the Aggregate Stock," *Journal of Business*, p. 1-40
- Masulis, R.W. and B. Truman (1988) "Corporate Investment and Dividend Decisions Under Differential Personal Taxation," *Journal of Financial and Quantitative Analysis*, vol. 23, p. 369-386
- McCabe, G.M., (1979) "The Empirical Relationship between Investment and Financing: A New Look," *Journal of Financial and Quantitative Analysis*, p. 119-135
- Michel, A., (1979) "Industry Influence on Dividend Policy," *Financial Management*, p. 22-26
- Michel, A.J., (1979) "Industry Influence on Dividend Policy," *Financial Management*, vol. 8, p. 22-26
- Miller, M. and K. Rock (1985) "Dividend Policy under Asymmetric Information," *Journal of Finance*, vol. 40, p. 1031 – 1052.

- Miller, M., and F. Modigliani (1989) "Dividends Policy, Growth, and the Valuation of Shares, *Journal of Business* 34,411-433
- Miller, M.H, (1986) Behavior Rationality in Finance: The Case of Dividends, *The Journal of Business*, 59, S451-S468
- Miller, M.H. (1977) Debt and Taxes, *The Journal of Finance*, 32, 261-275.
- Miller, M.H. and F. Modigliani (1961) Dividend Policy, Growth, and the Valuation of Shares, *The Journal of Business*, 34, 411-433.
- Miller, M.H. and K. Rock (1985) Dividend Policy under Asymmetric Information, *the Journal of Finance*, 40, 1031-1051
- Miller, M.H. and M.S. Scholes (1978) Dividends and Taxes, *Journal of Financial Economics*, 6, 333-364.
- Miller, M.H. and M.S. Scholes (1982) Dividends and Taxes: Some Empirical Evidence, *Journal of Political Economy*, 90, 1118-1141.
- Modigliani, F. (1982) "Debt, Dividend Policy, Inflation and Market Valuation," *the Journal of Finance*, 37, 255-273.
- Moses, H.A., and D. Rapaccioli (1998) "The link Between Dividend Changes and Future Earnings," *The Journal of Financial Statement Analysis*, p. 29-39
- Myers, S.C. (1987) Comments on "The Informational Content of Dividends, in *Macroeconomics: Essays in Honor of Franco Modigliani*, John Bosons, Rudiger Dornbusch, and Stanley Fischer, eds., Cambridge, Massachusetts: MIT Press.
- Myers, S.C. (1990) *Still Searching for Capital Structure*, Keynote address delivered at IIEC International Conference
- Myers, S.C., (1984) "The Capital Structure Puzzle," *Journal of Finance*, p.575-592
- Nissim, D., and A Ziv, (2001) "Dividends Changes and Future Profitability," *Journal of Finance*, vol. 56, p. 2111-2133

- Ofer, A.R. and A.V. Thakor (1987) "A Theory of Stock Price Responses to Alternative Corporate Cash Disbursement Methods: Stock Repurchases and Dividends," *The Journal of Finance*, 42, 365-394
- Olson, G.T and P.D McCann, (1994) "The Linkages between Dividends and Earning," *The Finance Review*, vol. 29, p. 1-22
- Onyango S., (1999) A Study to Establish Factors Management Consider Before Declaring Issue and The Benefits to Shareholders at NSE., Unpublished MBA Thesis, University of Nairobi
- Pandey I.M, (2004) *Financial Management*, Publishers New Delhi P.P 274-275
- Robin, A.J. (1991) "The Impact of the 1986 Tax Reform Act on Ex-Dividend Day Returns," *Financial Management*, vol. 20, p. 60-70
- Rodriguez, R.J. (1992) "Quality Dispersion and the Feasibility of Dividends as Signals," *The Journal of Financial Research*, vol. 15, p. 307-315
- Roll, R. (1977) "A Critique of the Asset Price Theory's Test: Part I: On Past and Potential Testability of Theory," *Journal of Financial Economics*, vol. 4, p. 129-176
- Ross, S., (1989) "The Determination of Financial Structure: the Incentive Signaling Approach," *Bell Journal of Economics*, vol. 8, p. 23 – 40
- Rozeff, M., (1982) "Growth, Beta and Agency Costs as Determinants of Dividend Payout Ratios," *Journal of Financial Research*, p. 249-259
- Scott, W.R. (1912) *The Constitution and Finance of English, Scottish, and Irish Joint Stock Companies to 1720*, Cambridge: Cambridge University Press.
- Seitz, E (1990), *Capital Budgeting and Long-term Financing Decisions*, The Dryden Press, Chicago U.S.A
- Shefrin, H. and M. Statman (1984) Explaining investor preference for cash dividends," *Journal of Financial Economics* 27, 253-282

- Shiller, R. J. (1984), *Stock Prices and Social Dynamics*, (Rep. No. Cowles Foundation)
- Shleifer, A & Vishny, R.W, (1986) "Large Shareholders and Corporate Control," *Journal of Political Economy*, University of Chicago Press
- Spence, A.M. (1973) Job market signaling, *Quarterly Journal of Economics*, 87, pp. 355-374.
- Spence, A.M. (1974) *Market Signaling: Informational Transfer in Hiring and Related Processes* (Cambridge, Harvard University Press)
- Thaler, R. (1980) Towards a positive theory of consumer choice. *Journal of Economic Behavior and Organization*, 1, 39-60
- Thaler, R. H., and H. M. Shefrin, (1981), An Economic Theory of Self-Control, *Journal of Political Economy* 89, 392-410
- Van Horne, J., (1989) *Financial Management and Policy*, Englewood Cliffs, NJ: Prentice Hall
- Venkatesh, P.C (1989) "The Impact of Dividend Initiation on the Information Content of Earnings Announcements and Returns Volatility," *Journal of Business*, vol. 62, p. 175-197
- Wairimu S.M., (2002) Empirical Relationship between Dividend and Investment Decisions of Firms Quoted in the NSE, Unpublished MBA Thesis, University of Nairobi
- Walter J.E. (1967) *Dividend Policy and Enterprise Valuation*, Wadsworth publishing company INC, Belmont, California, U.S.A
- Watts, R (1989) "The information Content of Dividends," *Journal of Business*, vol. 46, p. 191-211
- Weston J. and Brigham E.F. (1981), *Managerial Finance*, the Dryden Press: Hinsdale, Illinois
- Woolridge, J., (1982) "The Information Content of Dividend Changes," *Journal of Financial Research*, vol. 5, p. 237-247

## APPENDICES

### Appendix 1: NSE Equities:

#### A).Agriculture.

1. Uniliver Tea

2. Kakuzi

3. Rea Vipingo

4. Sasini Ltd.

5. Eaagads \*

6. Williamson Tea \*

7. Kapchuora \*

8. Limuru Tea \*

#### B).Commercial and Allied

9. Access Kenya Group Ltd.

10. Car & General

11. CMC

12. Hutchings Biemer

13. Kenya Airways Ltd.

14. Marshalls

15. Nation Media Group

16. Safaricom Ltd.

17. Scangroup Ltd.

18. Standard Group Ltd.

19. TPS Eastern Africa (Serena) Ltd.

20. Uchumi Supermarkets

21. Express \*

#### C).Finance & Investment

22. Barclays Bank

23. CFC Stanbic Ltd.

24. Diamond Trust

25. Equity Bank Ltd.

26. Housing Finance
27. Centum Investments Ltd.
28. Jubilee Holdings Ltd.
29. K.C.B.
30. Kenya Re-Insurance Co.
31. National Bank
32. National Industrial Credit
33. Pan African Insurance Ltd.
34. Standard Chartered Bank
35. City Trust

D).Industrial & Allied

36. Athi River Mining Ltd.
37. BOC (K)
38. Bamburi
39. British American Tobacco
40. Carbacid
41. Crown Berger
42. E.A.Cables
43. E.A.Portland
44. E.A.Breweries
45. Everready East Africa Ltd.
46. Kenya Oil
47. K.Pow.&L.
48. KenGen
49. Mumias
50. Olympia Capital Holdings
51. Sameer Africa Ltd.
52. Total
53. Unga
54. A.Baumann
55. K.Orchads

Source:NSE/DN,tue,july,2008.

Notes:

- Hutchings Biemer, Uchumi and A. Baumann are currently suspended.
- \* Indicates the companies that have been decomposed and transferred to respective industries (sub segments/sectors), from the Alternative Investment Segment (AIMS).

## Appendix 2: Summary of Working Schedules

### Company Name

#### **AGRICULTURE SECTOR**

Unilever Tea Kenya Limited  
Kakuzi Limited  
Rea Vipingo Plantations Ltd  
Sasini Tea and Coffee Limited  
Eaagads Limited  
Williamson Tea Kenya Limited  
Kapchorua Tea Company Limited  
Limuru Tea Company Limited

#### **FINANCIALS AND INVESTMENTS**

Access Kenya  
Car and General (Kenya) Limited  
CMC Holdings Limited  
Hutching Beemer  
Kenya Airways Limited  
Marshalls (East Africa) Limited  
Nation Media Group Limited  
Salaricom  
Scangroup Limited  
Standard Group Limited  
TPS (Tourism Promotion Services) Eastern Africa Limited (Serengeti)  
Uchumi Supermarket  
Express Kenya Limited

#### **INDUSTRIAL AND ALLIED**



PO Ratio (PAY)	Proportion of Insiders (INS)	Log (STOCK)	Annual Average Revenue Growth (GROW)	Stock beta {EPS(s)- EPS(m)}
1.5018	0.00000	3.623146	0.0046	(0.7196)
0.1410	0.00000	3.207365	0.0896	(2.0316)
0.4656	0.59480	3.827369	0.1571	(2.1396)
0.2778	0.00000	3.790707	0.1203	(0.5696)
3.8007	0.00000	2.089905	0.1050	(3.3016)
0.7826	0.00000	3.113609	0.0183	0.0004
0.6955	0.00000	2.462398	0.0671	0.4324
1.2028	0.00000	2.000000	0.0546	3.7004
#DIV/0!	0.00000	4.468849	0.0000	(3.4496)
0.1375	0.01136	2.940516	0.3165	0.4484
0.1946	0.00000	4.092580	0.1351	3.5384
#DIV/0!	#DIV/0!	#NUM!	0.0000	(3.4496)
0.2149	0.00000	4.872453	0.2088	1.0644
0.1119	0.00000	2.567026	(0.0111)	(1.2156)
0.6078	0.00000	3.959947	0.1152	6.9164
#DIV/0!	#DIV/0!	#NUM!	0.0000	(3.4496)
0.0000	0.00000	4.645353	0.0000	(2.8776)
0.0000	0.00000	3.414305	0.2323	(2.8776)
0.4600	0.00004	3.902057	0.2774	(1.2976)
#DIV/0!	0.00000	3.811575	0.0000	(3.4496)
(0.0227)	0.00000	3.630123	(0.2956)	(7.8476)

Barclays Bank of Kenya Limited  
CFC Bank  
Diamond Trust Bank (Kenya) Limited  
Equity Bank Limited  
Housing Finance Company Limited  
ICDC  
Jubilee Insurance Company Limited  
Kenya Commercial Bank Limited  
Kenya Re  
National Bank of Kenya Limited  
NIC Bank Limited  
Pan Africa Insurance Company Limited  
Standard Chartered Bank Kenya Limited  
City Trust Limited

## **COMMERCIAL AND SERVICES**

Athi-River Mining Limited  
BOC Kenya Limited  
Bamburi Cement Company Limited  
British American Tobacco Kenya Limited  
Carbacid  
Crown-Berger Kenya Limited  
East African Cables Limited  
East African Portland Cement Company  
East African Breweries Limited  
Eveready East Africa Limited  
Kenya Oil Company Limited  
Kenya Power and Lighting Company Limited  
Kenya Electricity Generating Company (KenGen)  
Mumias Sugar Co  
Olympia Capital Holdings limited  
Sameer Africa Limited (formerly- Firestone East Africa (1969) Limited)  
Total Kenya Ltd

1.0528	0.00000	4.770454	0.3009	6.5524
0.2531	0.00000	3.465532	0.4660	0.4544
0.3753	0.00000	4.043087	0.6043	(1.4776)
0.2404	0.00000	3.892484	0.0000	4.8704
0.0000	0.00000	4.452538	0.1289	(2.9596)
0.5043	0.44981	4.583085	0.3499	2.1824
0.3018	0.00000	3.760121	0.3325	6.3264
2.1849	0.28576	5.183606	0.1729	(2.2596)
#DIV/0!	0.60007	5.166098	0.0000	(3.4496)
0.0000	0.00000	5.086360	0.2538	(1.2436)
0.6661	0.00000	4.317123	0.2137	0.1084
0.6721	0.00000	3.460898	1.9502	(2.0956)
0.8598	0.00000	4.513111	0.0774	5.6804
1.2966	#DIV/0!	#NUM!	0.1776	(0.9276)
0.3350	0.00000	3.878292	0.2374	(1.8676)
0.6879	0.00000	2.857935	0.1243	5.2724
0.9599	0.00000	3.416807	0.1374	1.3884
1.0858	0.00000	3.734240	0.0783	8.0624
#DIV/0!	0.11337	2.906874	0.0000	(3.4496)
0.4741	0.00000	3.423574	0.1171	(1.1296)
0.5876	0.00109	4.208549	0.5486	0.1924
0.8265	0.00000	2.943989	0.1805	(1.0056)
0.6420	0.00205	4.406915	0.0789	13.6524
0.7595	0.00000	5.171422	0.0000	(2.6596)
0.2284	0.00000	3.346549	0.4106	19.7504
(0.1905)	0.00000	3.706803	(0.0337)	(7.3876)
0.3216	0.00000	5.367673	0.0000	(1.7396)
0.6563	0.20119	5.110869	0.1104	(2.0936)
0.0000	0.00000	3.369958	0.1166	(2.1816)
0.9868	0.00000	4.165126	0.0468	(2.8416)
0.7997	0.00000	3.733197	0.2677	(0.5236)

Barclays Bank of Kenya Limited  
CFC Bank  
Diamond Trust Bank (Kenya) Limited  
Equity Bank Limited  
Housing Finance Company Limited  
ICDC  
Jubilee Insurance Company Limited  
Kenya Commercial Bank Limited  
Kenya Re  
National Bank of Kenya Limited  
NIC Bank Limited  
Pan Africa Insurance Company Limited  
Standard Chartered Bank Kenya Limited  
City Trust Limited

## **COMMERCIAL AND SERVICES**

Athi-River Mining Limited  
BOC Kenya Limited  
Bamburi Cement Company Limited  
British American Tobacco Kenya Limited  
Carbacid  
Crown-Berger Kenya Limited  
East African Cables Limited  
East African Portland Cement Company  
East African Breweries Limited  
Eveready East Africa Limited  
Kenya Oil Company Limited  
Kenya Power and Lighting Company Limited  
Kenya Electricity Generating Company (KenGen)  
Mumias Sugar Co  
Olympia Capital Holdings limited  
Sameer Africa Limited (formerly- Firestone East Africa (1969) Limited  
Total Kenya Ltd

1.0528	0.00000	4.770454	0.3009	6.5524
0.2531	0.00000	3.465532	0.4660	0.4544
0.3753	0.00000	4.043087	0.6043	(1.4776)
0.2404	0.00000	3.892484	0.0000	4.8704
0.0000	0.00000	4.452538	0.1289	(2.9596)
0.5043	0.44981	4.583085	0.3499	2.1824
0.3018	0.00000	3.760121	0.3325	6.3264
2.1849	0.28576	5.183606	0.1729	(2.2596)
#DIV/0!	0.60007	5.166098	0.0000	(3.4496)
0.0000	0.00000	5.086360	0.2538	(1.2436)
0.6661	0.00000	4.317123	0.2137	0.1084
0.6721	0.00000	3.460898	1.9502	(2.0956)
0.8598	0.00000	4.513111	0.0774	5.6804
1.2966	#DIV/0!	#NUM!	0.1776	(0.9276)
0.3350	0.00000	3.878292	0.2374	(1.8676)
0.6879	0.00000	2.857935	0.1243	5.2724
0.9599	0.00000	3.416807	0.1374	1.3884
1.0858	0.00000	3.734240	0.0783	8.0624
#DIV/0!	0.11337	2.906874	0.0000	(3.4496)
0.4741	0.00000	3.423574	0.1171	(1.1296)
0.5876	0.00109	4.208549	0.5486	0.1924
0.8265	0.00000	2.943989	0.1805	(1.0056)
0.6420	0.00205	4.406915	0.0789	13.6524
0.7595	0.00000	5.171422	0.0000	(2.6596)
0.2284	0.00000	3.346549	0.4106	19.7504
(0.1905)	0.00000	3.706803	(0.0337)	(7.3876)
0.3216	0.00000	5.367673	0.0000	(1.7396)
0.6563	0.20119	5.110869	0.1104	(2.0936)
0.0000	0.00000	3.369958	0.1166	(2.1816)
0.9868	0.00000	4.165126	0.0468	(2.8416)
0.7997	0.00000	3.733197	0.2677	(0.5236)