THE EFFECT OF DIVIDEND POLICY ON THE VALUE OF THE FIRMS QUOTED AT NAIROBI STOCK EXCHANGE

BY

BITOK J. KIBET

A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, FACULTY OF COMMERCE.

UNIVERSITY OF NAIROBI

NOVEMBER 2004

DECLARATION

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

Signed _____

BITOK J. KIBET (D61/8298/01)

Date 7TH JAN. 2005.

This management research project has been submitted for examination with my approval as the University Supervisor.

Signed _____

ANGELA KITHINJI (MRS)
LECTURER, DEPARTMENT OF ACCOUNTING & FINANCE,
UNIVERSITY OF NAIROBI

Date 7/01/2005

DEDICATION

To my dear parents, Joel & Monicah Bitok, who stood by my side as I went through the immeasurable challenges in pursuing the MBA degree.

ACKNOWLEDGEMENT

I would first and foremost thank the Almighty God for giving me this opportunity to pursue an MBA degree. May all the Glory and Honour be yours, Amen.

I would also like to extend my sincere gratitude to my supervisor Angela, whose guidance, patience, keen interest and effort was critical to the completion of this project. Thank you, Angela, May God bless you.

My parents Joel and Monica Bitok to whom I will always be indebted. Their contribution is not measurable and I want to thank them most sincerely.

God bless you all.

ABSTRACT

The three major decisions of the firm are the investment, financing and the dividend decisions. The crucial question in dividend policy is whether dividends have an influence on the value of the firm given the firm's investment decisions. The objective of this study was to establish the effect of dividend policy on the value of the firms quoted at N.S.E. Secondary data obtained from the N.S.E. library and company libraries was used. Companies that were consistently quoted at the stock exchange for the period of six years, from 1998 to 2003 and paid dividends during that period were included in the sample. According to the findings of this study, dividend policy is relevant. Therefore an optimal dividend policy exists. However, the relationship between dividend policy and the value of the firms quoted at NSE is weak implying there are other factors (investment and financing decisions) other than dividend policy that affect the value of the firm.

From the analysis, it was observed that there was a negative relationship between the dividend policy and the value of the firms for the entire market. This supports the tax differential theory advanced by Litzenberger and Ramaswamy in 1979. They argued that tax rate on dividends is higher than tax rate on capital gains. Therefore, a firm that pays high dividends will have a lower value since shareholders pay more on dividends.

However, it was observed that there was a weak positive relationship between the dividend policy and the value of the firms in different sectors. This supports the information signalling effect theory advanced by Ross in 1977. He argued that in an inefficient market, management could use dividend policy to signal important information to the market, which is only known to them. For example, if management pays high dividends it signals high-expected profits in future to maintain the high dividend level. However, dividend announcements may not possibly reflect in the value of the firm because of weak form efficiency (efficient market hypothesis) in the developing markets.

It was also observed that large firms generally had greater impact on the market than small firms. There was a negative relationship between DPOR and the value of the large firms. But there was a weak positive relationship between DPOR and the value of small firms. Large firms maintained clear and consistent dividend policy, which affected their values more than in small firms. There were more large firms quoted in the N.S.E than small firms hence they had more influence in the market. Local based firms were observed to have more impact on the market than foreign-based firms. There was a negative relationship between DPOR and the value of local based firms. It was also observed that government influenced firms had more impact on the market. There was a negative relationship between the DPOR and the value of the non-government and government influenced firms.

TABLE OF CONTENTS

ABBREVIATIONS

N.S.E. ;Nairobi Stock Exchange

MBA; Master of Business Administration

DPS ; Dividends Per Share

EPS ; Earnings Per Share

DPOR; Dividend Payout Ratios

MM ; Miller & Modigliani

NBK; National Bank of Kenya.

EABL; East African Breweries Ltd.

LIST OF GRAPHS

CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND

The critical question in dividend policy is whether dividends have an influence on the value of the firm, given a firm's investment decisions. If dividends are irrelevant, as Modigliani and Miller (1961) believe, the firm should retain earnings only in keeping with its investment opportunities. If there are not sufficient investment opportunities to provide expected returns in excess of the required return, the unused funds should be paid out as dividends. The key issue is whether dividends are more than just a means of distributing unused funds. If they do not affect the value of the common stock, dividend policy becomes more than a passive variable determined solely by the investment opportunities available. The firm could affect shareholder wealth by varying its dividend payout ratio. As a result, there would be an optimal dividend policy (Van Horne, 1983).

With perfect capital markets and absence of taxes, shareholders can manufacture "homemade dividends" and make dividend payout irrelevant. With deferential taxes on dividends and capital gains, there is seemingly a bias in favour of retention; however, small investors and tax-free institutions would not be affected in this way. Moreover, it is possible to avoid taxes on dividends by borrowing and deducting the interest payments while, at the same time investing the proceeds in some assets that permits the realization of capital gains to be postponed. This tax dodge was investigated, as was the Clientele theory, where corporations after the supply of dividends in keeping with the tax situations of investor Clienteles.

The market imperfection of floatation costs is biased in favour of retention because retention is less expensive than the common stock financing used to replace dividends. Quality restrictions on the investment behaviour of financial institutions and restrictions on short-sales works in the direction of a preference for dividends. Financial signalling implies that dividends may be used to convey information. That information, rather than dividends itself, affects valuation (Brigham and Gapenski, 1994).

Unfortunately, empirical evidence on the relevance of dividends in a world with perfect imperfections is conflicting. In the final analysis, it is not clear to state whether or not the dividend payout of the firm should be more than a passive decision variable. Admittedly, many companies behave as if dividend policy is relevant, but the cause for it is not conclusive.

Recalling that corporate management dislike cutting dividends, Miller and Modigliani (1961) argue that increase in cash dividends raise expectations about the level of future earnings- that they have favourable information content. Dividends are probably subject to less uncertainty than capital gains, but they are taxed at a higher rate. How do these two forces balance out? Some argue that the uncertainty factor dominates; others feel that the differential tax rate is the stronger force and causes investors to favour corporate retention of earnings; still others like Miller and Scholes (1962), argue that investors have opportunities for altering the tax effects of dividends (Levy & Sarnat, 1990).

This research set to look in to the empirical relationship between the dividend policy and the value of the firms quoted at N.S.E. Studies, which have been done so far, are in perfect markets of the West.

1.2 STATEMENT OF THE PROBLEM

Does dividend policy really affect the value of the firm? Some scholars argue that dividend policy is irrelevant (Miller and Modigliani, 1961) whereas others view it otherwise. Two basic schools of thoughts on dividend policy have been expressed in the theoretical literature of finance. One school, associated with Gordon and Lintner (1962), among others, holds that the capital gains expected to result from earnings retention are riskier than the dividend expectations. Accordingly, these theories suggest that the earnings of a firm with low payout ratio are typically capitalised at higher rates than the earnings of a higher payout firm, other things held constant. The other school associated with Miller and Modigliani (1961) holds that investors are basically indifferent to returns in form of dividends or capital gains. When firms raise or lower their dividends, if their stock prices tend to rise or fall in like manner, does this prove that investors prefer dividends? Miller and Modigliani (1961) argue that it does not. They argue that any effect a change in dividends, has on the price of firm's stock is related primarily to information about expected future earnings conveyed by a change in dividends (Weston and Brigham, 1981).

Some studies indicate that the dividend policy of a firm is relevant while others indicate that it is irrelevant. This study sets to determine whether there exists a causal relationship between dividend policy and the value of the firm.

The average data on regression results proves that the only significant regression result was that on average return on assets that means that in making dividend decisions managers considered return on assets. Managers do not consider return on equity and growth in assets in making dividend decisions. An investor who is especially interested in cash dividends rather than capital gains will be able to distinguish those companies with a high dividend payout ratio from those with high capital gains as reflected by an increase in assets and increase in share prices (Kuria ,2001).

The following hypothesis were tested for this study;

H_0: Dividend policy does not affect the value of the firm.

H_1: Dividend policy affects the value of the firm.

1.3 OBJECTIVE OF THE STUDY

To establish the effect of the dividend policy on the value of the firms quoted at the Nairobi Stock Exchange (N.S.E.).

1.4 JUSTIFICATION OF THE STUDY

The third major decision of the firm is its dividend policy, the percentage of earnings a firm pays in cash to its stockholders. Dividend payout reduces the amount of earnings retained in the firm and affects the total amount of internal financing. Consequently, it must be analysed in relation to the overall financing decision. The study intends to evaluate dividend policy in light of the objective of the firm; namely, to maximise the value of the firm to its shareholders. Shareholders wealth increases not only the market price of the stock but also current dividend. Assuming that business risk is held constant, i.e. the acceptance of any investment proposal does not affect the business-risk complexion of the firm as perceived by suppliers of capital. The dividend payout ratio of a firm depends upon the way earnings are measured. For ease of exposition, we use the accounting net earnings but assume that these earnings conform to the true economic earnings of the firm (Weston & Brigham,1981).

In practice, net earnings may not conform and may not be an appropriate measure of the ability of the firm to pay dividends. Certain writers argue that cash flow, the sum of the earnings and depreciation, is a better measure of the capacity of the firm to pay dividends. Brittain (1966) suggest that the liberalization of depreciation allowances in the post-world war II period renders net earnings as invalid measures of the ability of corporations to pay dividends. Despite the persuasive argument that cash flow best approximates the 'true' earnings of a firm, we shall continue to use net earnings in the theoretical

development. Like the other major decisions of the firm, -the investment and financing decision-, the dividend decision has both theoretical and managerial facets.

1.5 IMPORTANCE OF THE STUDY

The findings of this study will be of interest to:

The Management

The management of publicly quoted companies will be able to determine the effect of dividends on the value of their firms so that they can make prudent dividend decisions.

The Government

The Government of Kenya will be enlightened in a bid to make policies relating to dividends and taxes. Thorough knowledge of the effect of dividends on the value of the firms will assist in ascertaining the appropriate amount of tax to pay for dividends paid out and the effects on values of the firm.

The Financial Consultants

These findings will enable financial consultants to offer proper services to their clients. This relates to optimal dividend policy where the values of their firms can be maximized.

The Scholars and Academicians

Scholars and Academicians who may wish to use the findings of this study as a basis for further research on this subject.

The Investors

Investors who may need to know the relationship between dividends policy and value of the firm for them to choose which firm to invest their funds in.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 WHAT ARE DIVIDENDS?

Dividend valuation models estimate the present value from an expected future stream of dividends. If the predictions are correct, the valuation will probably be reasonably accurate, but if the forecast were off its target, such would not be the case. If a firm fails to pay dividends, then the dividend valuation makes little sense. If a firm were never to pay a dividend, would the company cease to have value? Probably not! As long as the expectation exists (borne out by reality) that retained earnings were being reinvested to increase the asset base of the company, the firm would have some value (Hirt, 1981).

In this environment, many investors prefer to have capital gains from appreciating stock prices rather than dividends. Nevertheless, there has always been the "bird-in-the-hand theory" that dividends are worth more than earnings because, once paid to the shareholder, the company cannot take them away. While it is true that dividends do have information content and these influence expectations, rising dividends is no guarantee that the common stock will also rise in the short run. While increased dividends generally increase common stock value, we see that this is not always the case. If a company's overall performance is questionable, then raising dividends may not encourage investors (Gitman,1998).

2.2 MANAGERIAL CONSIDERATIONS IN DETERMINING A DIVIDEND PAYOUT

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

2.2.1 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 any thing 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 analysed 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, 1983).

2.2.2 Liquidity

The liquidity of a 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 liquidity of the company is strongly influenced by the firm's investment and financing decision. 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).

2.2.3 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 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, 1983).

2.2.4 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 generalisations concerning the effect of dividends on valuation. 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).

2.2.5 Control

If a company pay 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 by 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).

2.2.6 Nature of stockholders

When a firm is 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.

2.2.7 Restrictions in bond indenture or loan agreement

The protective covenants in a bond indenture or loan agreement often include a restriction on payment of 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 to stockholders the retention of earnings. It need only point to the restriction (Kolb & Demong,1988).

2.2.8 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. This decision must be based upon investment policy and valuation (Seitz, 1990).

2.3 DIVIDEND POLICIES (HOW MUCH TO PAY)

2.3.1 Constant payout ratio

This is where the firm will pay a fixed dividend rate e.g. 40% of earnings. The DPS 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 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).

2.3.2 Constant amount per share (Fixed Dividend 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.

2.3.3 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).

2.3.4 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 maximisation (Pandey,1991).

2.4 MODE OF PAYING DIVIDENDS (HOW TO PAY)

2.4.1 Cash and Bonus Issue

For a firm to pay cash dividends, it should have adequate liquid funds. However, under conditions of liquidity 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).

2.4.2 Stocks 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).

2.4.3 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 aversely 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).

2.5 INDICATORS OF DIVIDEND POLICY (DIVIDEND SETTING)

Observable features of the corporate dividend scene that interest both shareholders and management include dividend yield, dividend payout, frequency of payment, and corporate significance of extras and stock dividends. Not only do dividend yield and payout reveal strong tendencies on an over-all basis, but also some significance appears to be attached to industry groupings. The unanimity of opinion as to the most appropriate frequency of payment in turn is overwhelming. Dividends extras and stock dividends occupy a minority position, their purpose-when used- seems to be to afford management added flexibility and to compensate for departures from norm (Walter, 1978).

2.5.1 Dividend yield

The dividend yield defined as the ratio of current cash dividends (annual rate) to the market price of the stock measures part of anticipated long-run return to the investor. The other component of the anticipated return is the expected rate of growth in dividends. Due allowances must of course be made for the duration and stability of the growth. As measured by standard and Poor's 500 common stocks, average annual dividend yield have ranged between 2.98 per cent and 7.24 per cent over the past 25 years. The 1964 average of monthly yields was 3.01%. On the assumption that the long run dividend growth rate parallels that for the economy (at say 3.5% to 4% p.a.), the anticipated return to the investor has varied from 6.5% to 11%. Only in the period since 1958, have dividend yields declined below the assumed growth factor (Ross,Westerfield,Jaffe ,1993).

2.5.2 Dividend Payout Ratio (DPOR)

This is the ratio of dividends per share to the earnings per share. It shows the proportion of earnings that was paid out as dividends and how much was retained.

Classification by industry appears to have moderate value at least. An analysis of variance conducted for nine industries gave rise to an F-value of 3.1, which is significant at the 5% level. The interpretations of a study on average of payout ratios of 1962 and the associated standard deviations indicate that payout ratios that relate annual cash dividends to annual earnings reported is far from clear. For one thing, the denomination of the ratio (a single years reported earnings) is a random variable and need not bear a close relationship to normal earnings. This consideration has special relevance in the interpretation of a single payout ratio and affects the over-all distribution to the extent that the sample size in any class is insufficient and the annual earnings are correlated (Walter, 1978). Our conclusion is that real dividend payments as a proportion of true income may be notably different from the reported ratio. It is also quite possible that changes in the relative importance non-cash charges have reduced the meaningfulness of inter temporal comparisons.

2.5.3 Frequency of Payment

The area in which there is virtual unanimity of corporate opinion is frequency of declaration and payment of cash dividends. As evidenced by the following breakthrough by frequency of occurrence of dividends declared in November 1963, over 97% of dividends were quarterly. The importance of the preference for quarterly payments, aside from convenience to stockholders and cost to the company, lies in the resultant visibility of the impact of dividend payments upon dividend stock price. With dividends yields in the neighbourhood of 3 per cent, the quarterly decline in the market value resulting from the cash dividend should not exceed 0.75%, less some adjustment for the differential between capital gains and personal income taxation. The peak profit from good timing is only about 1%. This suggests that the frequency of payment has some consequences.

2.5.4 Extra Cash Dividends

A number of firms that desire to gear cash dividends more closely to current earnings that is feasible through regular quarterly dividends alone employ extra dividends (and label them as such). The idea is to distinguish between sustainable dividends that reveal managerial expectations and dividends that are simply distributions of current earnings. A spokesman for American Enka stated " there is no particular policy on year-end extra dividends; the directors just see where we are at the end of the year and act accordingly. More often than not, extras are declared annually in the fourth quarter, concurrently with regular dividends. Their timing is consistent with the purpose of adjusting cash dividends to current situation. Whether management's decision to divide the dividend stream between regular and extra dividends has any major bearing upon stock values is far from clear. For this to be the case, it would have to be supposed that two elements of a single dividend stream affect shareholder expectations differently from an un-separated dividend stream (Seitz, 1966).

2.5.5 Stock Dividends

For November 1963, the proportion of companies that declared stock dividends was about the same (at 10.8%) as that of firms that declared extras. Ratios of stock dividends to stock outstanding were typically set at 2%, 3% or 5%. More often that not, stock dividends supplement, rather than take place of, cash dividends. As long as the cash dividend per share remains unchanged, the effect of stock dividends is to raise the cash dividend (when adjusted back to the old shares) in the ratio of stock dividends to shares outstanding. The device of the stock dividends thus adds appreciably to the continuity of changes to annual cash dividends. As long as it continued, the Brunswick policy of supplementary cash dividends by a year-end stock dividend of 5% (1954-57) caused cash dividends to grow geometrically;-i. e.

$D_t = D_o\ (1.05)\ t$ Where D-refers to yearly cash dividends

t - Number of years.

The stock dividend will capitalise a portion of these undistributed earnings, which the board of directors considers should be retained in the business. At the same time, the stock dividend will provide common stockholders with tangible evidence of this investment by issuing additional shares to them and by placing this investment on a dividend-paying basis. It should be stressed that, apart from the effect upon cash dividends, a policy of stock dividends has inherent value of in it's own right. Since neither the anticipated earnings- risk profile nor the allocation thereof to existing shareholders is affected; the value of each stockholder's holdings is presumably unaffected. Associated with increase in shares, therefore is a proportional decrease in value per share (Ross, Westerfield, Jaffe ,1993).

2.6 THE VALUATION OF THE FIRM

2.6.1 The going concern

There are a variety of reasons why owners, investors, competitors, creditors and others are interested in determining the value of a going enterprise. This valuation is essentially an analysis of its "power to earn". At the same time, we must consider the pattern of assets employed by the company to see whether they are all related to the basic activities whose earnings power we are to analyse (Seitz,1990).

Furthermore, we must consider the pattern of company's capital structure as an indication of the risk to which the company has exposed its owners and creditors. We must also consider the characteristics of the industry, such as stability, its long run prospects and exposure to technological change since these affect our estimate of earning power. Part of the valuation of a going enterprise consists of judgement of the quality of its operating management, age and condition of its physical plant, and ingenuity and calibre of its technical and marketing personnel. The valuation of a firm is obviously multi – faceted, involving an analysis of the earnings of a company's resources, both tangible and intangible, of its capital structure,

and of the environment in which it operates. It is clearly not a question of determining the values of all individual assets of the company, subtracting the liabilities from this sum and arriving at the ownership value. The sum of the parts is generally less than the value of the whole organization not only because of questions one may raise about the valuation implicit in the accounting process, but also because of the instinct values of any organization, its customer relations, reputation and similar intangibles (Helfert, 1979).

2.6.2 Earnings

Though earnings are an elusive concept at best, the valuation of an enterprise can be approached in two ways via its earnings. One can analyse a company's earnings pattern, derive a reasonable average or 'normal' earnings from this analysis and then 'capitalize' these 'normal' earnings at a suitable rate of return which reflects the risk characteristics of the company and industry. The major judgements to be made relate of course, to what are "normal" earnings based on the past performance and future expectations and what a suitable rate of return might be to compensate the owners of the firm for their capital commitment and risk. The other method of establishing the value of a going concern is akin to the 'present value' method of investment analysis. This method essentially, amounts to a projection of the future operating cash inflows, the company is likely to generate, a forecast of possible additional requirements to be filled by the owners, and discounting these future flows to the present at a suitable interest rate that expresses the character of and the risk inherent in the business. In either case, the value of any assets held by a company which are not employed in the earning process (redundant assets) must be added to the value achieved through capitalization or present value analysis. Both methods have in common the concept of earning (cash flows) as the basis of value, and both leads to ignore stated values as reflected in the financial statements (Van Horne, 1983).

2.6.3 Capital structure

The degree of risk exposure of an enterprise is governed to a considerable degree by its capital structure. The essential question is the relative amount of funds provided by outsiders (creditors) and funds provided by insiders (stockholders). Generally, the greater the proportion of debt to outsiders, not only the greater is the potential hazard to the firm, but also the greater the opportunity to boost the return to owner's equity. This relationship is called financial leverage. Intimately connected with this concept is the cost of capital, which depends on the proportion of various funds and the risk of the capital structure. There is a risk borne by the debt holders, who look to the firm for interest and principal payments. The equity holders look for earnings, dividends and growth. The specific risk attached to a capital structure, in financial terms, refers to the ability of the enterprise to "service" and eventually retire the various firms of debt contained in the capital structure, and to provide earnings to the equity holders. Often, financial analysts and business commentators refer to companies as "highly leveraged" and comply a most favourable image. While earnings can be improved through use of debt for a limited and fixed fee, this obligation must be fulfilled under all circumstances or the firm's good name will suffer.

The debt holders offer capital but do not accept the same risks as the equity owners (Pandey, 1991). Therefore, each company must be careful because the risk of using debt with the likely boosting effects on earnings. Clearly, the expenses of no debt at all and of very heavy debt are not desirably given reasonable circumstances. The value of firms in these extremes will suffer, in one case from extreme caution, in the other from extreme risk exposure.

When we analyses the value of firm on the basis of its earning capacity, not only the nature of earnings themselves, but also the capital structure is important. It may be necessary to adjust earnings figures to a more normal capital structure for the size and nature of the company before proceeding to capitalize the expected future earnings or compute the present value of the firm. The value of a firm in economic terms is based on its capacity to earn a return on the investments made in it. This earning capacity can either be expressed in terms of total value as "capitalization of average earnings", whereby normal earnings will be related to a normal rate of return, or in a more complex situation – the future cash flows generated and used by a business can be dislocated to the present at appropriate opportunity rates (Helfert, 1966). Earnings are subject to accounting conventions, to the vagaries of the total economy, and to the specific industry and company condition. A careful analysis must be made of total environment. The choice of discount rate is subject to a great deal of individual judgement. The capital structure and its risk characteristics affect both the earnings and the choice of the discount rate (Walter,1998).

2.6.4 Common stock

It is relatively easy to define the economic principle of value underlying any form of investment in corporate securities. The power to earn a return on the invested funds, and the recovery of these funds at some terminal point. We have to analyse the value of common stock almost purely in terms of company's position. -its future earnings, dividends to be expected, growth in sales and assets, competitive position and technological acumen.

Theoretically, the common stockholder owns a claim to a series of dividend payments and a share of ever-changing ownership residual, which grows with earnings and shrinks with losses. Thus, valuation can start with the attempt to determine the present value of the future dividend payments and of either the criminal receipt upon dissolution of the corporation or the estimated receipt upon resale of the stock to others in the open market or in industry transfer (Gitman,1998).Dividends are at the discretion of firms' board of directors, and not a legally binding provision. Even though a corporation may have a policy of paying out a certain part of earnings as common cash dividends, or may set a minimum dividend as a corporate goal, there is no assurance that this dividend might not be stopped, decreased or even increased. Thus the job of valuation involves the forecasting and assessment of a company's dividend policy and therewith a judgement about the size, pattern trend and feasibility of cash dividends to be expected.

Some of the most important factors bearing upon this analysis will be the size and stability of earnings, the cash position and cash planning of the company, expansion plans and competitive developments and the size and pattern of outstanding debts and their repayment schedule.

All rules are rough guides at best in the area of stock valuation, and it is not possible to discuss common stock valuation apart from mechanisms of the stock market. The stock market is subject to somewhat erratic swings, tending to overvalue favourable news and to be seriously influenced by unfavourable developments. Apart from corporate swings, then, the movement of the stock market over time will give an indication of value, based on such diverse factors as corporate earnings, dividends, the economic and political outlook, general business conditions and international relations. Among the most frequent relationship used for common stock valuation is the so-called price-earnings ratio, which is applicable where any earnings expectations exist for a corporation. This ratio is nothing but an expression of the capitalized earnings approach. It presupposes that a reasonable forecast, from past and present earnings, can be made of the future earnings of the company under investigation; their stability, upward or downward trend, and their likely duration on the light of competitive developments (Brittain,1966).

2.7 INDICATORS OF THE VALUE OF THE FIRM (VALUATION RATIOS)

Valuation ratios are the most comprehensive measures of performance for the firm, as they affect the combined influence of risk ratios and return ratios.

2.7.1 Price to earnings ratio

This is the ratio, which indicates the price of the share to the earnings per share. Price earnings ratio has to be interpreted with care

Mathematically:

Price to earnings ratio = price/earnings

2.7.2 Market to book ratio

It indicates the value of the financial markets attached to the management and the organization of the company as a going concern. In some sense, book value represents the historical costs of the physical assets of the company. A company with a strong management and an organization that has learned to function efficiently should have a market value in excess of its costs of physical assets (Bierman,1966).

Mathematically;

Market to book ratio = Market value/Book value

2.7.3 Return on assets ratio

This method values the firm in terms of the profits generated from the assets invested by the firm. The greater the return, the higher the value of the firm, other things being constant.

2.7.4 Capital Asset Pricing Model

This approach aids in the determination of the appropriate discount rate to employ in discounting expected dividends to their present values. The rate will be the risk free rate plus a premium sufficient to compensate for systematic risk associated with the expected dividend stream (Van Horne,1983).

2.8 DIVIDEND THEORIES AND VALUE OF THE FIRM.

2.8.1 Residual Dividend Theory

Under this theory, a firm will pay dividends from residual earnings i.e. earnings remaining after all suitable projects with positive NPV have been finalised. It assumes that retained earnings are the best source of long-term capital since it is readily available and cheap. This is because no flotation costs are included in their use to finance new projects/investment. Therefore, the first claim on earning after tax and preference dividends will be a reserve for financing investments. According to this theory, dividend policy is irrelevant and treated as a passive variable. It will not affect the value of the firm. However, investment decisions will affect the value of the firm (Pandey,1991).

2.8.2 MM Dividend Irrelevance Theory

This theory was advanced by Modigliani and Miller in 1961. The theory asserts that a firm's dividend policy has no effects on its market value and cost of capital. They argue that a firm's value is primarily determined by the ability to generate earning from investment and he level of business and financial risk.According to MM (1961), dividend policy is a passive residue determined by the firm's need for investment funds. It does not matter how the earnings are dividend between dividend payment to shareholders and retention. Therefore, the optimal dividend policy does not exist. Since when investment decision is a mere detail without any effect, they based their argument on the assumptions that; no corporation or personal kites, no transaction costs associated with share flotation, a firm has an investment policy (fixed), which is independent of its dividend policy, efficient market- all investors have the same set of information regarding the future of the firm, no uncertainty-all investors make decisions using the same discounting rate at all times i.e. required rate of return=cost of capital (Gitman,1998).

2.8.3 Bird-In Hand Theory

This theory was advanced by Lintner (1962) and furthered by Gordon (1963). It argues that shareholders are risk averse and prefer certainty. Dividend payments are more certain than capital gains, which rely on demand and supply forces to determine their share prices. Therefore, one bird in hand (certain dividends) is better than two birds in the bush (uncertain capital gains). Hence a firm paying high dividends (certain) will have a higher value since shareholders will require to use lower discounting rates. MM argued

against the above propositions. They argued that the required rate of return is independent of dividend policy. They maintained that an investor can realise if this is possible, investors would be indifferent between cash dividends and capital gains.

2.8.4 Tax Differential Theory

This theory was advanced by Litzenberger and Ramaswamy in 1979. They argued that tax rate on dividends is higher than tax rate on capital gains. Therefore, a firm that pays dividends have lower value since shareholders pay more on dividends. Dividend decisions are relevant but the lower the dividend the higher the value of the firm and vice versa. In Kenya, dividends attract withholding tax of 5%, which is final, and capital gains are tax-exempt (Hirt,1981).

2.8.5 Clientele Effect Theory

This theory was advanced by Petit in 1977. It states that different groups of shareholders (Clientele) have different preferences for dividends depending on their level of income from other sources. Low-income earners prefer high dividends to meet their daily consumption while high-income earners prefer low dividends to avoid payment of more taxes. Therefore, when a firm sets a dividend policy, there will be shifting of investors into and out of the firm until equilibrium is achieved. Low-income shareholder will shift to firms paying high dividends and high-income (earners) shareholders to firms paying low dividends. At equilibrium, dividend policy will be consistent with Clientele of shareholders the firm has. Dividend decisions at equilibrium are irrelevant since they cannot cause any shifting by investors (Pandey, 1991).

2.8.6 Agency Theory

The agency problem between shareholders and managers can be resolved by paying high dividends. If retention is low, managers are required to raise additional equity capital to finance investment. Each fresh equity issue will expose the managers financing decision to providers of capital e.g. bankers, investor, supplies etc. Managers will thus engage in activities that are consistent with maximisation of shareholders wealth by making their activities. This is because they know that the firm will be exposed to external parties through external borrowing. Consequently, agency costs will reduce since firms become self-regulating. Dividend policy will have a beneficial effect on the value of the firm; this is because dividend policy can be used to reduce agency problem by reducing agency costs. The theory implies that firms adopting high dividend payout ratio will have a higher value due to the reduced agency costs (Gitman, 1998).

2.8.7 Information Signalling Effect Theory

This theory was advanced by Ross in 1977. He argued that in an inefficient market, management can use dividend policy to signal important information to the market, which is only known to them. For example, If management pays high dividends, it signals high expected profits in future to maintain the high dividend level. This would increase the share price/value of the firm and vice-versa.

MM (1961) attached this proposition and suggests that the change in share/value following the change in dividend amount is due to informational content of dividend policy rather than dividend policy itself. Therefore, dividends are irrelevant if information can be given to the market to all players. Dividend decisions are relevant in an inefficient market and the higher the dividends, the higher the value of the firm. The theory is based on the assumptions that:-the sending of signals by management should be cost effective, the signals should be correlated observable events, no Company can imitate its competitors in sending the signals. Managers can only send true signals even if they are bad signals. Sending untrue signals is financially disastrous to the survival of the firm (Pandey, 1991).

2.9 DIVIDENDS AND VALUATION: EMPIRICAL EVIDENCE

It is clear enough that in a perfect capital market in which external financing is freely available, rational investors would be indifferent between components of their returns: dividends and capital gains. However, it is equally clear that in an imperfect market the firm should consider the possible effects of the differential tax brackets of its shareholders, dilution of control, flotation and transaction costs, the stability of earning etc, when reaching its dividend decisions. Under these circumstances, it is not clear if dividends would be preferred to capital gains or vice versa (Levy &Sarnat,1990).

A regularly paid dividend, well covered over the long run by the earnings of a company, will tend to boost the value of the common stock in the market compared with the common stock of a similar company with similar earnings that pays only occasional dividends or no dividends at all. This relationship has been studied through research in the behaviour of common stock prices, and can be observed in the usual spurt in the market value of a stock when increased dividends are declared even though company earnings have not risen in proportion or not at all. Even though earnings are the prime economic force behind the value of a share of equity, the actual distribution of such earnings has been looked upon by many analysts as an almost separate contribution to value. Other analysts and scholars have argued that increased dividends are interpreted by the market as an announcement of a permanent or expected increase in earnings. The apparent collective market judgement about the desirability of cash dividends does not take into account the opportunities for profitable reinvestment of such funds within the company, in the so-called "growth companies" (Helfert,1966).

On the empirical side, the importance of cash dividends of a component of stockholder returns i.e. cash dividends plus charge in stock price has diminished. Their relative contribution to the before – tax rate of return on common stock (NYSE listing) was 0.37 for the decade ending 1960, as contrasted with 0.75 for the twenty five years ending 1950 and 0.45 for the entire period of thirty five years. Dividend yields tended moreover, to decline throughout the 1950s and have remained in the neighbourhood of 3% well into 1960s. The lessened dividend contribution undoubtedly is a consequence of the elongated bull market and held not reflect a longer run shift in the stress placed upon dividends by investors. A comparison of total cash dividends disbursed in 1950 with those paid in 1965 reflects a growth rate close to that of national income. Whenever the bull market comes to a close, the dividend rate could well return to its earlier levels. Whatever the ultimate judgement, there are a number of major ambiguities about the influence of cash dividends upon stock values. For one thing, the implications of management acting as a residual owner in a discretionary have never been fully developed (Walter,1978).

In a world with no taxes, no transaction costs and perfect information, dividend policy does not affect the wealth of shareholders or the investment policy of the firm. But taxes, limited information and other market imperfections lead to situations in which shareholder wealth can be affected by the dividend policy. In this situation, availability of funds, the costs of capital and investment decisions of the firm are affected by the dividend policy.

Based on the assumption of perfect markets, no taxes and a given investment policy for the firm Miller and Modigliani (1961) showed that dividend policy does not matter. The essential part of MM argument is that shareholders can create the cash flow pattern they prefer by buying and selling shares, regardless of dividend policy. Dividend policy only matters because MM's assumptions do not hold in real world. The current state of knowledge does not make it possible to identify the exact dividend policy that will maximize the value of the firm. But it is possible to develop some general guidelines.

First, the legal requirements set upper and lower limits on dividend policy. Second, tax considerations taken in isolation would suggest that dividends be maximized. A company with substantial internal investment opportunities would minimize function costs by paying no dividends. But payment of regular dividends and avoidance of reduction will make the stock accessible to a broad group of portfolio managers. To consider simultaneously the factors affecting dividends, most companies establish mixed dividend policies involving payment of some target percentage of earnings as dividends. The mixed dividend policy is consistent with observations in a study by Fama and Babiak (1963). They observed that dividend increases depended on the number of times earnings had increased and how recent they had increased. Fama and Babiak (1963) also found that firms tended on average to move about one-third of the way from their previous position to their target dividend in any one year (Bierman,1986).

Watts (1962) found that dividends tended to be related to past dividends, present earnings and future earnings. There is also evidence that unanticipated dividend changes do provide information about future prospects. A mixed dividend policy is also consistent with empirical evidence on investors' response to dividends. Despite numerous studies of the impact of dividend payout ratios on value, there is no clear empirical evidence about preferred payout ratios. There is not even clear evidence with regard to whether dividends are preferred or not preferred, although a bulk of the evidence seems to be that higher returns are required from companies with high dividends (Gitman,1998).

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 POPULATION OF THE STUDY

The population of interest in this study consisted of the all the firms quoted at the Nairobi Stock Exchange (N.S.E.). This study was limited to quoted companies due to lack of readily available data from private companies.

3.2 SAMPLE

The sample consisted of all the firms quoted consistently at N.S.E for a period of 6 years from 1998-2003. A period of 6 years was chosen because the researcher considered the period to be adequate for establishing any relationship, if it exists between dividend payout ratio and the value of the firm as reflected in the share prices, to be detected.

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. Data on the value of the firm was obtained from the share prices as reported by N.S.E.

.4 DATA ANALYSIS

.4.1 Regression Model

The data collected was analysed using simple linear regression and correlation analysis. The significance of each independent variable was tested at a confidence level of 95%.

In on order to examine the impact of dividend payout (DPOR) on share prices, the regression equation of the form given below was applied.

$$\mathbf{Y_i = a + \beta X_i}$$

Where; Yi = Value of the firm as measured by share prices.

a = the intercept of the regression equation which represents the value of a firm with no dividends paid out.

β = the slope which represents the degree in which the value of the firm changes as the size of dividends changes.

X_i = dividend payout of the firm (proportion of total earnings)

In this study the independent variable was the dividend payout ratio (X_i) and the dependent variable was the value of the firm (Y_i).

Regression analysis requires that the variables **X** and **Y** be specified,

That is **X**=Dividend Payout ratio

Y=Value of the Firm and then estimate the values of **a** and **β** in order to estimate the regression line, **Y= a + βX**. Data for **X** and **Y** matched observations of the two variables for n time periods to produce **â** and **β,** the estimates of a and β, respectively. The estimated regression equation is;

Y= a + βX, thus β is an estimate of the effect of a unit increase in X and Y.

Calculus methods are used to estimate **a** and **b** that form the least square line, the line that minimises the sum of the squared residuals.

$$\beta = \frac{n\sum XY - (\sum X)(\sum Y)}{n(\sum X^2) - (\sum X)^2}$$

$$a = \frac{\sum Y - \beta \sum X}{n} = \bar{Y} - \beta \bar{X}$$ where n =no. of observations

Because the computations grow very tedious as the number of observations increase, usually computers are used. The computer-generated values in the appendix III are based on the dividend payout ratio and the value of the firm data.

3.4.2 Correlation Analysis

Correlation analysis is a statistical tool used to describe the degree to which one variable is related to the other. The relationship, if any, is usually assumed to be linear. If such a relationship does not exist then one should not talk of correlation.

In this study Coefficient of correlation (r) and coefficient of determination (r^2) were estimated to determine the nature and magnitude of the relationship. Correlation coefficient was used to measure the degree of relationship between dividend payout and the value of the firm. The magnitude of the sample coefficient of correlation indicates a weak or strong linear relationship;

$$\text{i.e. } r = \frac{n\sum(XY) - (\sum X)(\sum Y)}{\sqrt{\{n\sum X^2 - (\sum X)^2\}\{n(\sum Y^2) - (\sum Y)^2\}}}$$

r will always be a value in the interval $-1 \leq \mathbf{r} \leq +1$. The closer the **r** is to the end points, the stronger the linear relationship. The closer the value of **r** to 0, the weaker the relationship. However an **r**-value close to 0 does not rule out a non-linear relationship. A positive coefficient(**r**) indicates a positive upward-sloping relationship, whereas a negative coefficient(**r**) indicates the downward –sloping relationship.

The coefficient of determination ($\mathbf{r^2}$) measures the proportion or percentage of variations in **Y** that is explained by the regression of **Y** on **X**. Its values show how much of the change in Y that is observed

in the sample can be accounted for by the change in X, the dependent variable in the model, $0< \mathbf{r^2} <1$ or $0 < r^2 <100\%$. The larger the r^2 , the better the line fits the data points i.e. the smaller the sum of the squared residuals.

$$r = \frac{\text{Explained variation}}{\text{Total variation}}$$

CHAPTER FOUR

4.0 DATA ANALYSIS AND FINDINGS

4.1 RESULTS OF THE DIVIDEND PAYOUT RATIO (DPOR) AND SHARE PRICES

This chapter presents a summary of the findings on dividend payout ratios (DPORs) against the share prices (value) of the firms quoted at Nairobi Stock Exchange for the period 1998 to 2003. Discussions of these findings are presented in this chapter. For the period 1998 to 2003, the results indicated that there is a relationship between the dividend payout ratio (DPOR) and the value of the firm.

The value of Brooke Bond which paid no dividends at all in 1998 increased from sh.133.00 to sh.148.00 in 1999. Brooke Bond in year 2000 paid out 90.91% dividends and its share price was sh 74.00 whereas in 2001, it maintained the same DPOR of 90.91% but the share price rose to sh 101.00. In 2002 it reduced its DPOR to 43.76% and its share price dropped to sh56.50. In 2003, Brooke Bond increased its DPOR to 88.65% and its share price increased to sh77.00.

Sasini Tea which paid 76.34% dividends in 1998, its value reduced from sh75.00 to sh54.00 in 1999. Sasini Tea in 1999 paid out 93.75% dividends and its share price was sh 54.00, and in 2000 it increased its DPOR to 156.25% and its share price reduced to sh 35.00, whereas in 2001, Sasini Tea paid out 10.18% and its share price dropped to 26.75. In 2002, Sasini Tea paid out 34.36% and its share price was sh 15.00 but in 2003, it paid out –61.73% and its share price rose to sh 21.50.

NB: The negative DPOR means that the company made a loss in the year but dividends were paid out using the previous year's earnings or retained earnings

Limuru Tea which paid sh 77.99 dividends in 1998 had the share price of sh 755.00 and when it increased its dividends to 81.88%, its share price reduced to sh 650.00 in 1999. In the following year 2000 the share price remained relatively constant at sh 650.00 when the dividend payout was reduced to 64.52%. When the dividend payout of Limuru Tea was reduced to 0% in 2002, its share price was sh 394.00 and when DPOR was increased to 86% in 2003, the value remained at sh 394.00.

TPS Serena paid 93.46% dividends in 1998 and its share price was sh 13.00 . In 1999, the company paid 58.14% dividends and its share price remained constant at sh 13.60. In 2000, TPS Serena paid out 98.27% dividends and its share price was sh 19.05. In 2001, it paid out no dividend and its share price was sh 12.00.

National Bank of Kenya (N.B.K.) in 1998 paid out 64.43% and its share price was sh 11.55, in the next year 1999, it paid out –3.54% and its share price dropped to sh 6.00. In 2000-2002, N.B.K paid out no dividends and its share price remained at sh 3.60 on average. In 2003, N.B.K paid out no dividends but its share price rose to sh 14.90

Total Kenya in 1998 paid out 112.07% dividends and its share price was sh 42.00 and in the year 1999 it paid out 52.36% and its share price increased to sh 47.50. In 2000, Total Kenya paid out 34.52% and its share price rose to sh 51.00. In 2001, it maintained the dividend pay out of 34.52% and yet its share price dropped to sh 27.00. In 2002, Total Kenya paid out no dividends and its share price was sh 10.35, whereas in 2003, it paid out 70.54% and its share price rose to sh 35.75.

Crown Berger, which paid out 465.52% dividends in 1998, had its share price at sh 9.50; in 1999 it reduced dividends to 110.66% and its share price dropped to sh 8.65. In the next year 2000, it reduced dividends to 95.24% and its share price increased to sh 12.50. But in 2001, it reduced dividends to sh 63.29 and its share price dropped to sh 5.95.

East African Breweries Ltd (E.A.B.L.) paid out 45.15% dividends in 1998 had its share price at sh 53.00; in 1999 it paid out 264.32% and its share price rose to sh 78.00. In 2000, E.A.B.L reduced its dividend pay out to 52.22% and its share price dropped to sh 65.50, but when it increased in 2001 to 368.44% (DPOR) its share price rose to 80.00. In 2002, E.A.B.L reduced its dividends to 60.48% and its share price was sh 82.50, but in 2003, it increased its DPOR to 87.85% and its share price shot up to sh 226.00.

Dunlop paid out 46.99% dividends in 1998 and its share price was sh 154.00, whereas in 1999 it paid out 66.67% and its share price was sh 7.50. When Dunlop reduced its DPOR to 52.63% its share price dropped to sh 5.00 in 2001. But when Dunlop increased in DPOR to 125% in 2002, its share price remained constant at sh 5.00.

Kenya Power paid out 27.19% dividends in 1998 and its share price was sh 190.00. In 1999 it increased DPOR to 28.86% but its share price dropped to sh 113.00. In 2000, Kenya Power paid out 12.14% and its share price was sh 51.50, but in 2001 its DPOR was –39.31% and yet its share price was sh 29.00. In 2002 –2003, Kenya Power paid no dividends but its share price increased from sh 8.65 in 2002 to sh 32.00 in 2003.

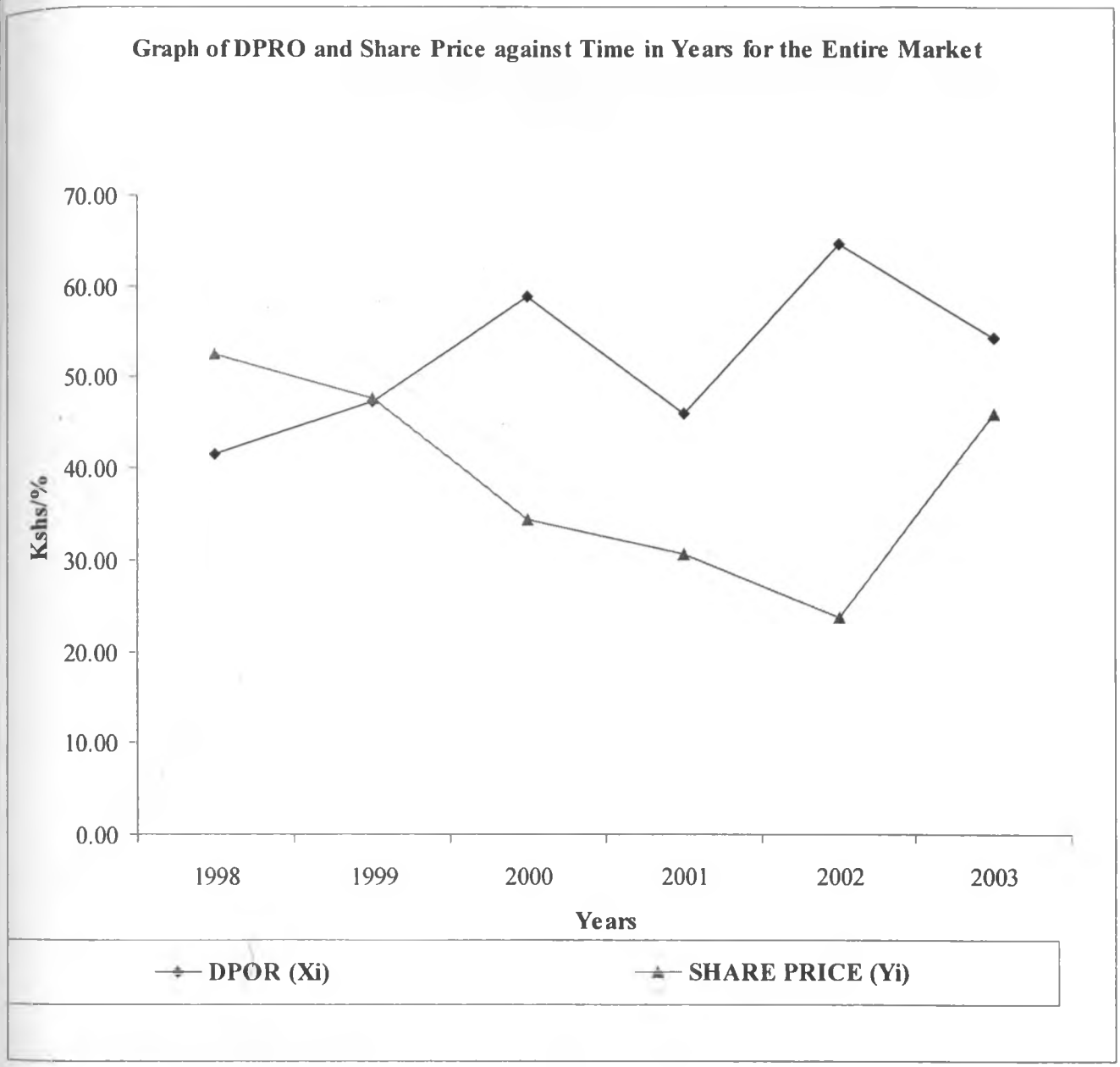
Uchumi Supermarkets in 1998 paid out 77.14% dividends and its share price was Sh.46.00. the following year 1999, Uchumi paid out 153.85% dividends and its share price rose to Sh.48.00. When it increased its dividends to 1666.67 in 2000, its share price reduced to Sh. 42.75. In 2001, Uchumi reduced its DPOR to 93.81% and its share price rose to 45.75. In 2002, Uchumi paid out 106.67% dividends and its share price dropped to Sh.16.60. in 2003, the DPOR was reduced to 33.56% and the share price rose to Sh.32.00

Kenya Airways (KQ) in 1998 paid out 40.76% dividends and its share price was Sh.7.05 and in 1999 it reduced its DPOR to 35.09% and yet its share price rose to Sh.8.20. in 2000, it paid out no dividends but its share price remained relatively stable at Sh.8.00. the next year, 2001 Kenya Airways increased its DPOR to 19.75% and the share price also increased to Sh.8.70. in 2002, Kenya Airways increased its DPOR to 31.91% and its share price dropped to Sh.7.25. In 2003 Kenya Airways increased its DPOR to 66.67% and its share price dropped further to Sh.6.50.

Barclays Bank paid out 57.20% dividends in 1998 and its share price was Sh.102.00 whereas in 1999, its DPOR was relatively stable at56.58% and yet its share price rose to Sh.112.00. in 2000, the DPOR was increased to 68.49% and its share price dropped to Sh.86.00. And in 2001, its share price was 81.50 when the DPOR was increased to 91.52% Barclays paid out 89.06% dividends in 2002 and the share price rose to Sh.85.00. in 2003, Barclays increased its DPOR to Sh.124.61 and the share price also rose to Sh.131.00.

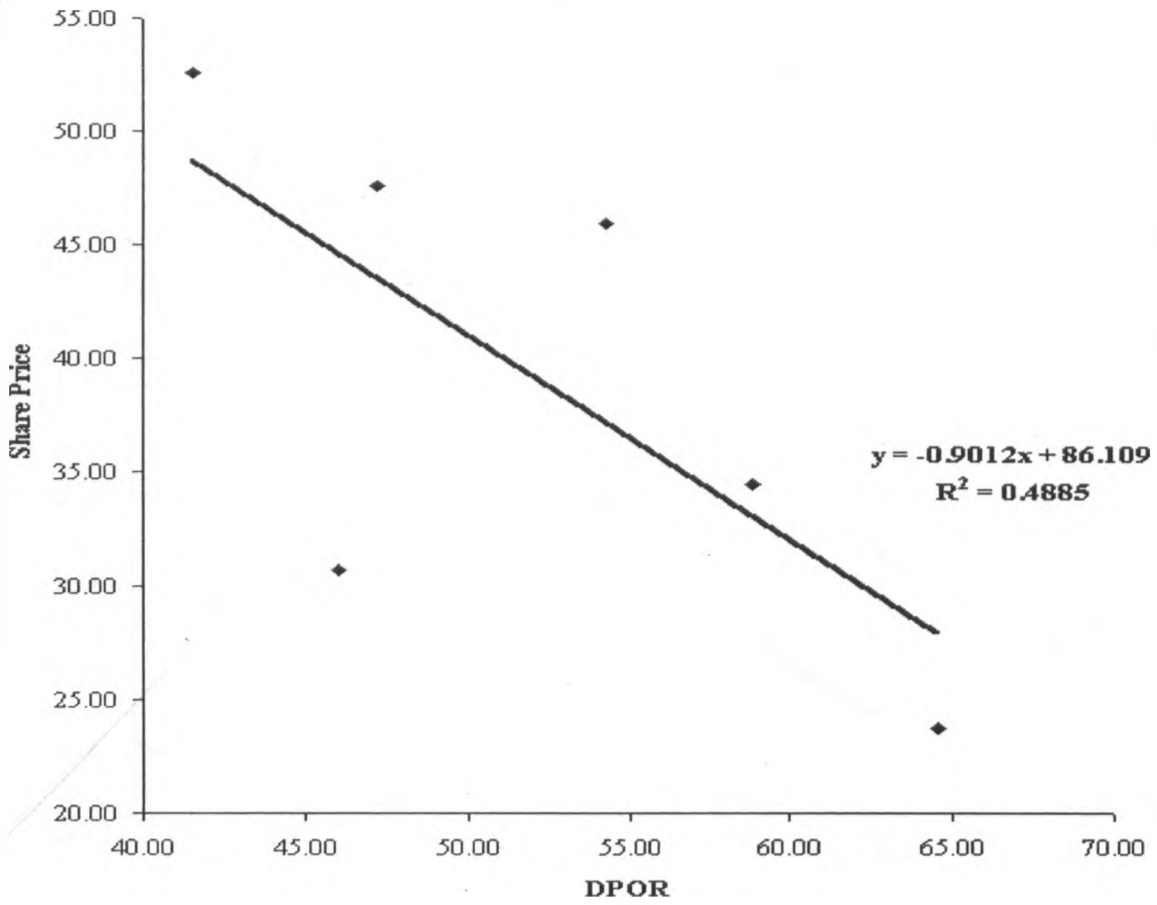
Diamond Trust made losses in 1998 and paid out -14.25% dividends and its share price was 22.00. In 1999, Diamond Trust made profits and paid out 30.77% and its share price rose to Sh.23.50. the following year it increased its DPOR to 41.03% and its share price dropped to Sh.20.00. in 2001, Diamond Trust paid out 29.13% dividends and its share price dropped further to Sh.11.55. the following year, the DPOR was increased to 78.43% and yet the share price further dropped to Sh.9.00. When the DPOR was reduced to 63.16% the share price increased to Sh.21.50

4.2 REGRESSION AND TREND ANALYSES OF DPOR AND SHARE PRICES



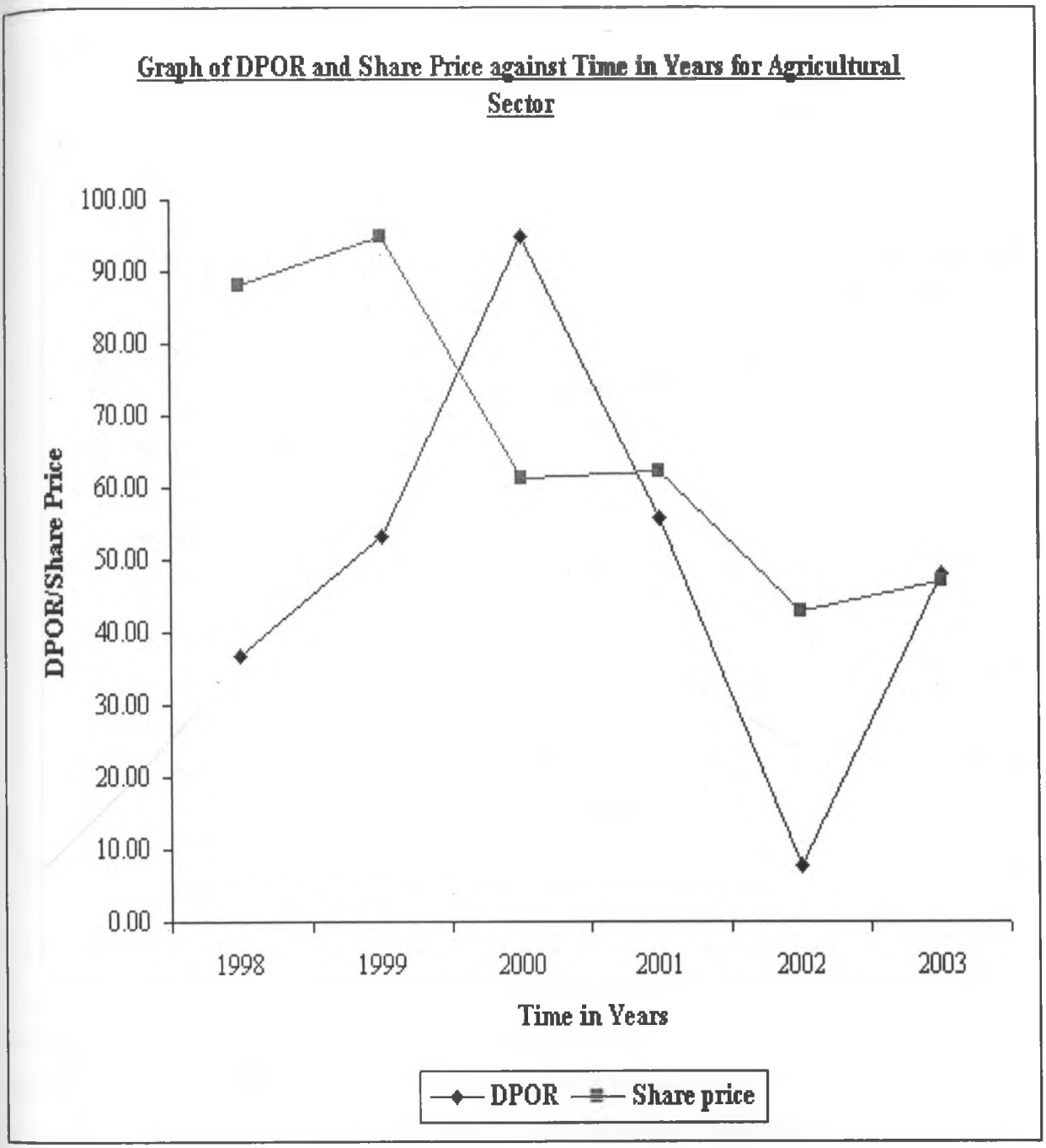
For the period 1998 to 2003, the results for the entire market indicated that there is a negative relationship between dividend payout ratio (DPOR) and the value of the firms. From the trend analysis graph between 1998 and 2000, the DPOR gradually increased and the share price decreased though not uniformly. Between 2000 and 2001, the DPOR decreased and the share price decreased. Between 2001 and 2002 the DPOR increased and the share price decreased. In 2003 the DPOR decreased and the share price had a sharp increase. This showed that there is a negative relationship between the DPOR and the share price even though the relationship is weak.

Regression analysis of Share Price against DPOR for the Entire market

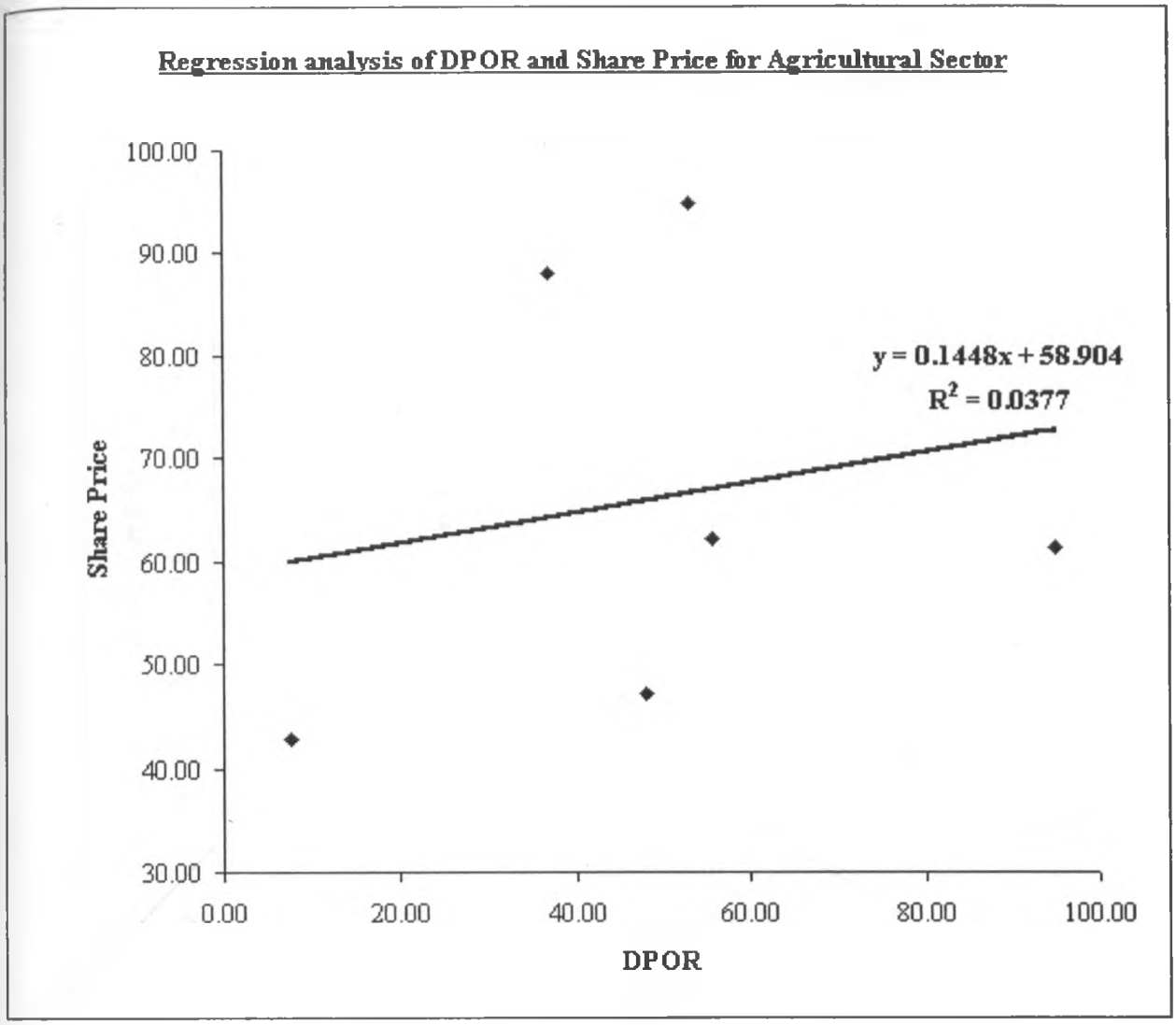


From the graph of regression analysis of DPOR against the value of the firm for the entire market, as the DPOR increased the value of the firm decreased. The coefficient of correlation (r) for the entire market was - 0.698 indicating that the graph is downward sloping or the relationship is negative. The coefficient of determination (r^2) was 0.485 which measured the proportion of variations in value that were explained by the regression of value on DPOR. It showed that 48.85% of changes in the value were accounted for by the changes in DPOR.

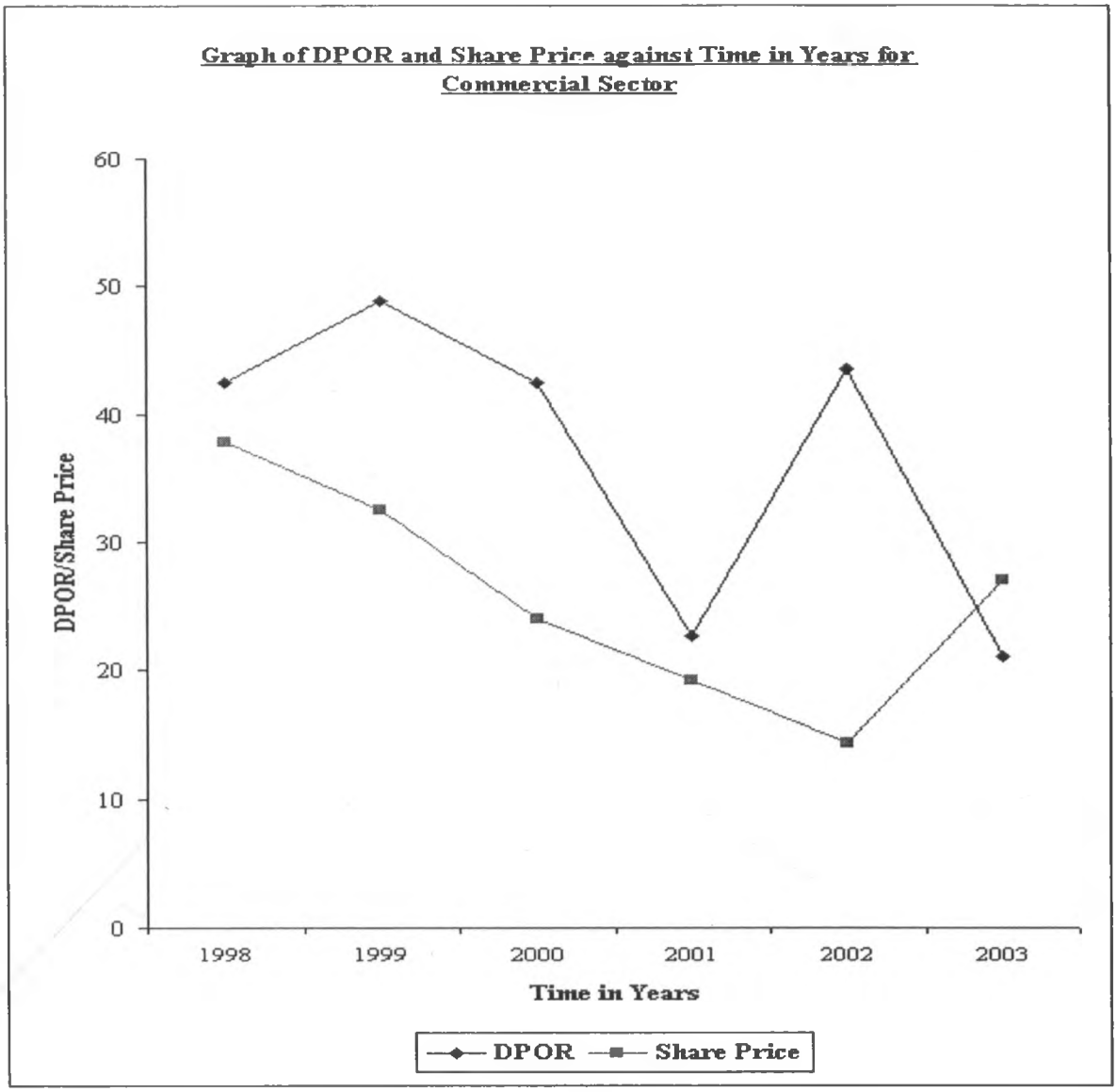
4.2.1 SECTORAL GRAPHS



From the trend analysis curve, as the DPOR was increased between 1998 and 2000, the share price increased for the period 1998 to 1999 and then dropped between 1999 and 2000. But between 2000 and 2002 the DPOR significantly reduced and the share price slightly increased in 2001then decreased in 2002. In 2003 the DPOR increased sharply while the share price increased at a lower rate. This indicates a weak positive relationship between DPOR and the share price.

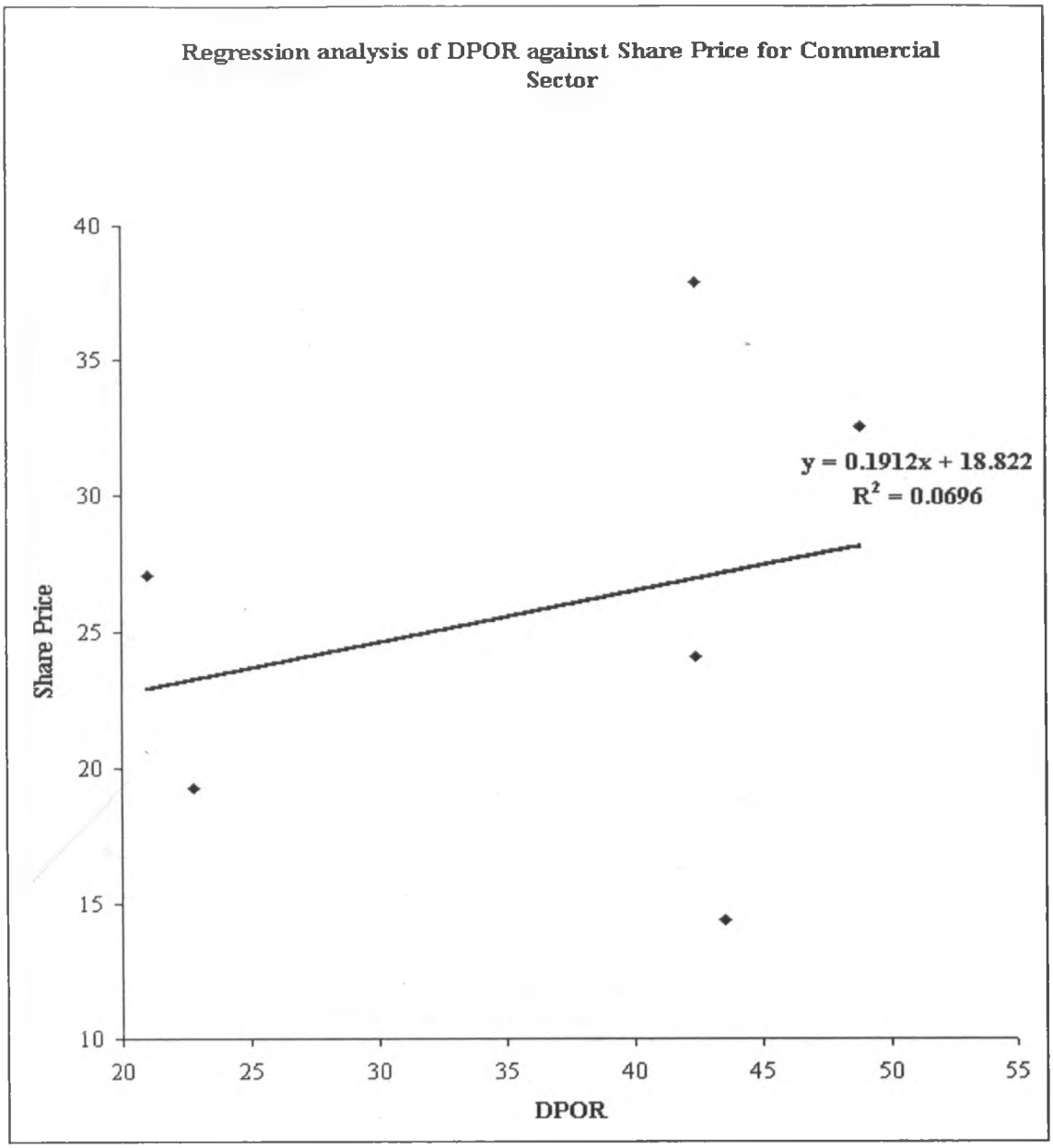


For the agricultural sector, as the DPOR increased the share price increased from 1998 to 2003. From the regression analysis results of DPOR and the value of the firms for the agricultural sector from 1998 to 2003, it was observed that on average as the DPOR increased the value of the firm increased. Generally, there appears to be a positive relationship between the DPOR and the value of the firms in the Agricultural sector. The coefficient of correlation (r) was found to be 0.194 meaning that the relationship was weak as this value of r was close to 0.The coefficient of determination (r^2) was found to 0.0377 or 3.77% indicating that 3.77% of the changes in the value of the firm are explained by the change in the DPOR.

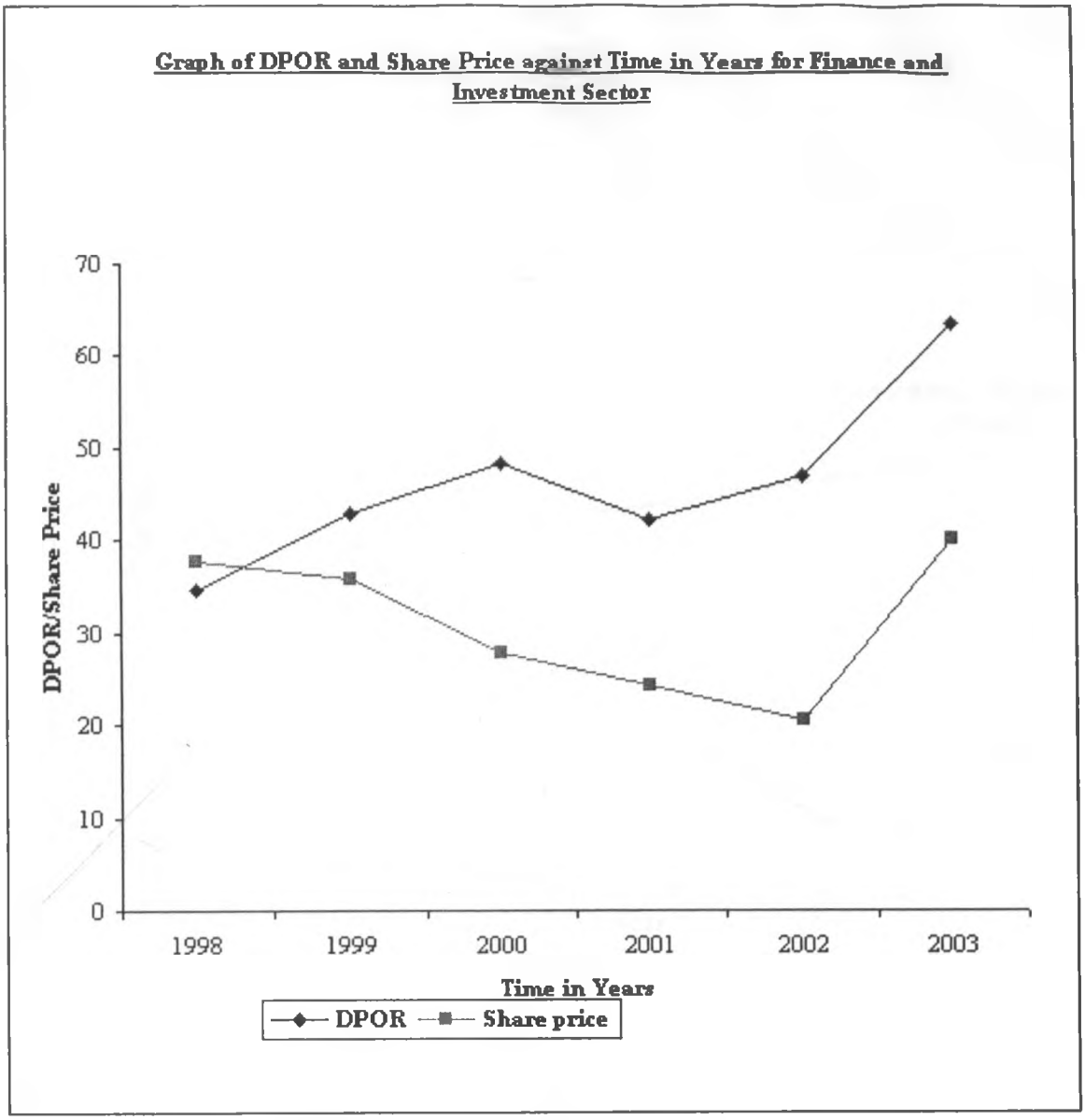


From the trend analysis curve above, it can be observed that as the DPOR increased the share price decreased between 1998 and 1999. As the DPOR was gradually decreased from 1999 to 2000 the share price continued to decrease. In 2001the DPOR was sharply decreased and the share price continued to decrease. In 2002 when the DPOR was sharply increased, the share price decreased.

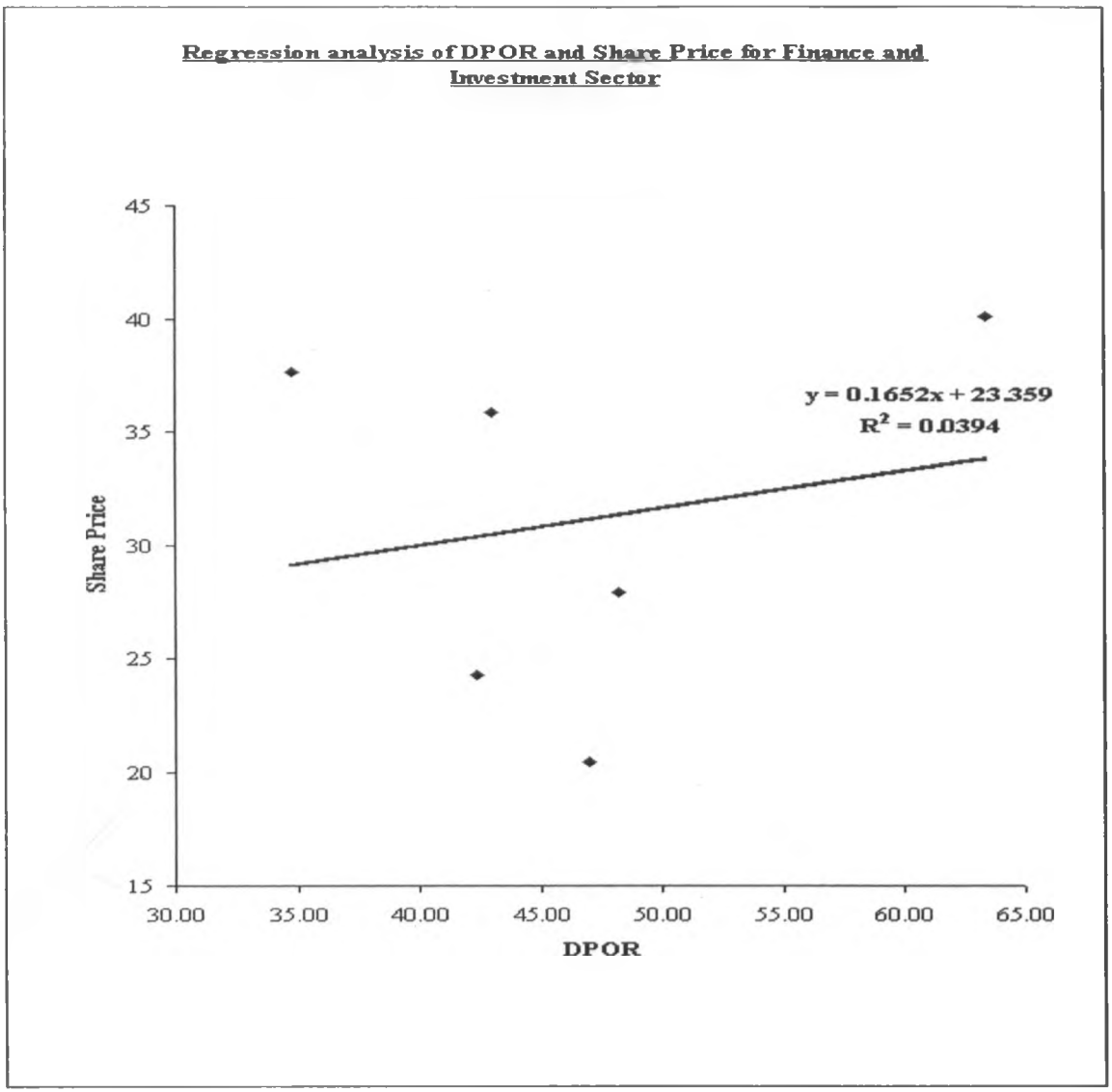
But when the DPOR decreased in 2003, the share price increased. There seems to be a positive relationship between the DPOR and the value of the firms in the Commercial and Service sector.



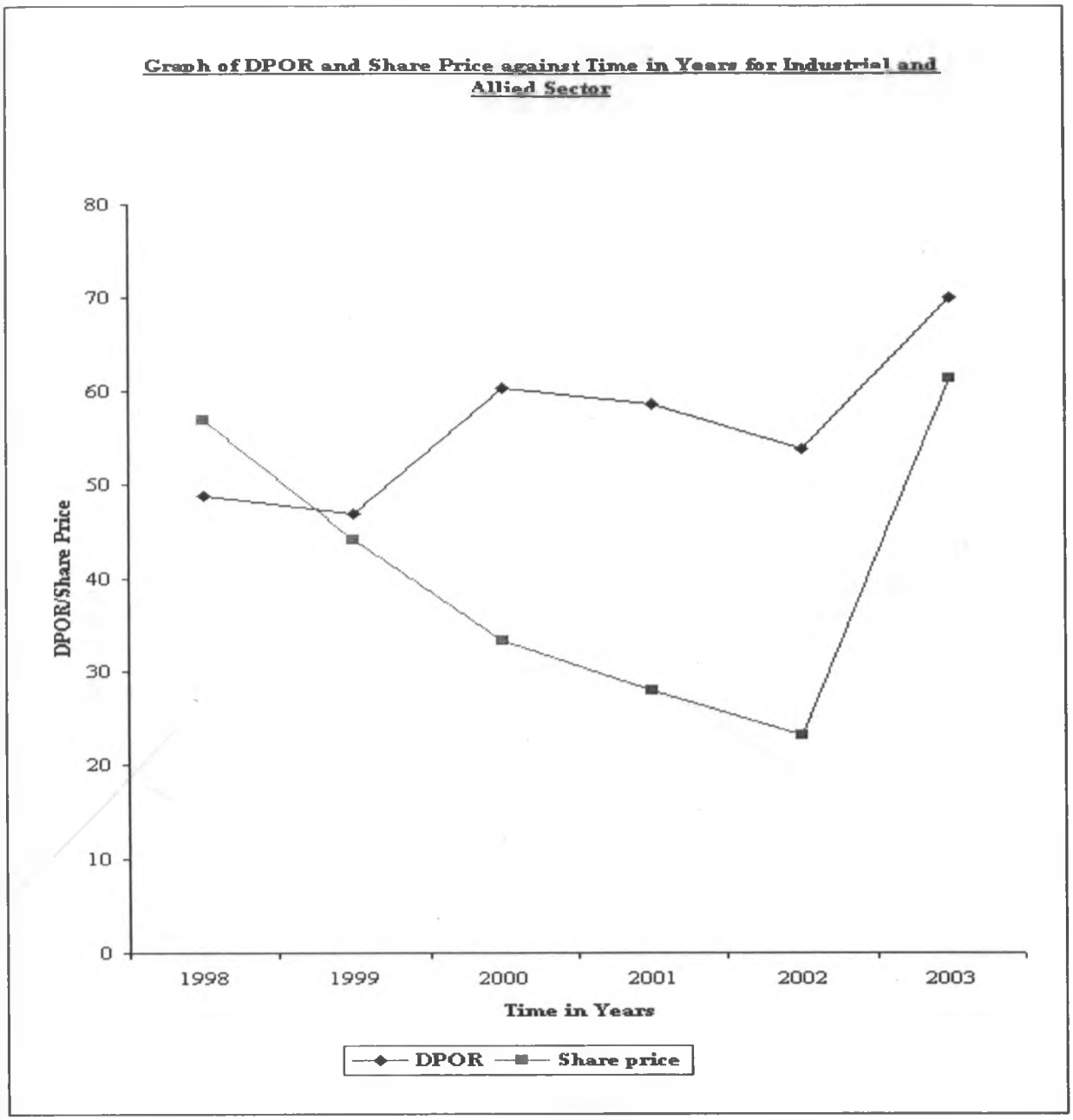
From the regression analysis results, there is a positive relationship between the DPOR and the value of the firm. The coefficient of correlation (r) for commercial and service sector was 0.264 indicating that the relationship was weak. The coefficient of determination (r^2) was 0.0696 or 6.96% implying that 6.96% of the variations in the value of the firm are explained by the DPOR. i.e. 6.96% of the changes in the value of the firm are accounted for by the changes in the DPOR.



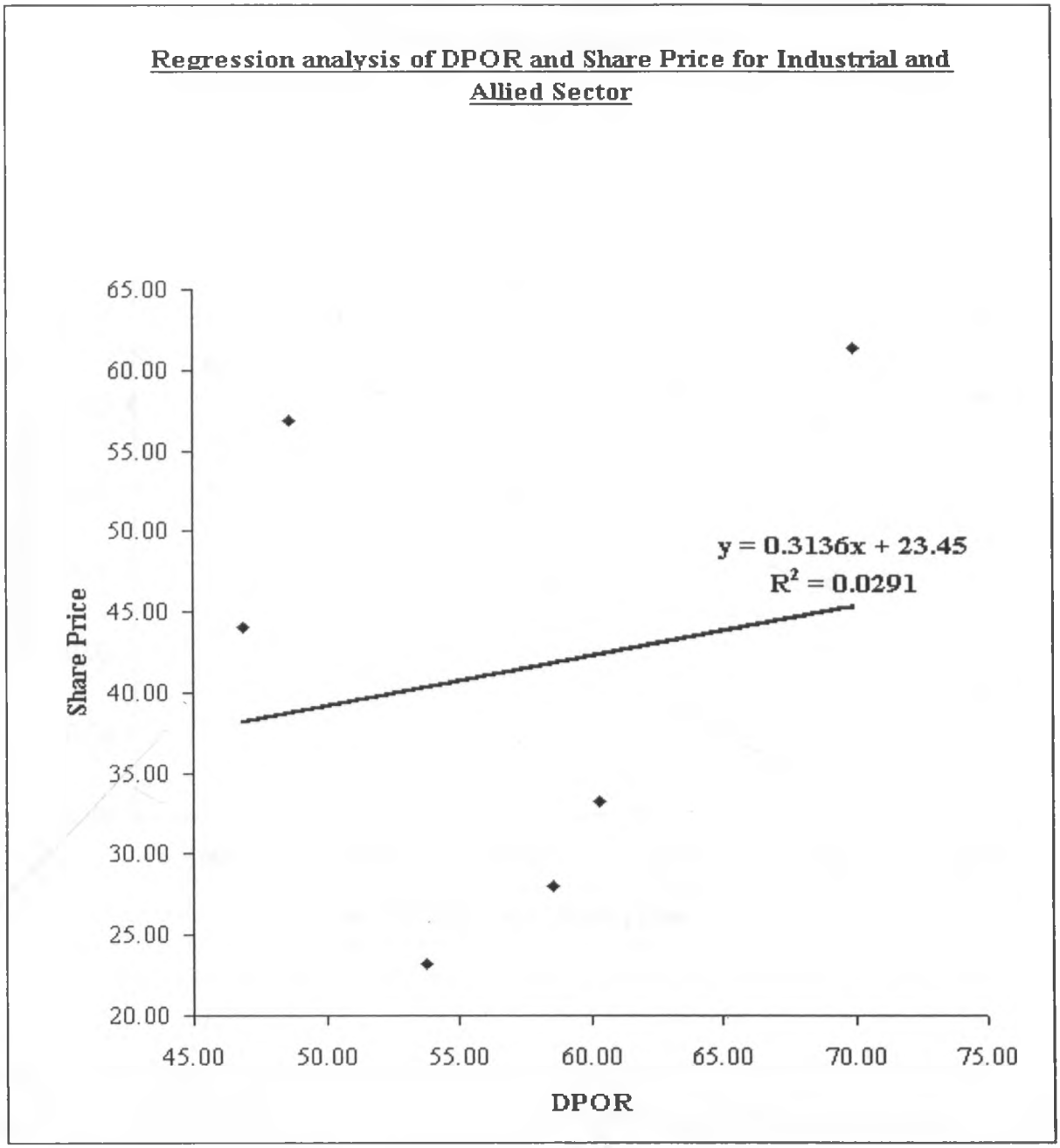
From the trend analysis curve, it was observed that the DPOR increased gradually between 1998 and 2000. During the same period, the share price gradually decreased at a slower rate. Between 2000 and 2001the DPOR decreased and the share price decreased. Between 2001 and 2002 the DPOR increased and the share price decreased. However as DPOR sharply increased between 2002 and 2003 the share price sharply increased.



The regression analysis for Finance and Investment sector showed that there is a positive relationship between the DPOR and the value of the firms in the Finance and Investment sector. As the DPOR increased the value of the firm increased for the period 1998 to 2003.The coefficient of correlation (r) for the Finance and Investment sector was 0.196 meaning that there was a weak relationship between DPOR and value of the firm. The coefficient of determination (r^2) for the sector was 0.0394 indicating that 3.94%of variations in the value of the firm are explained by the changes in DPOR.

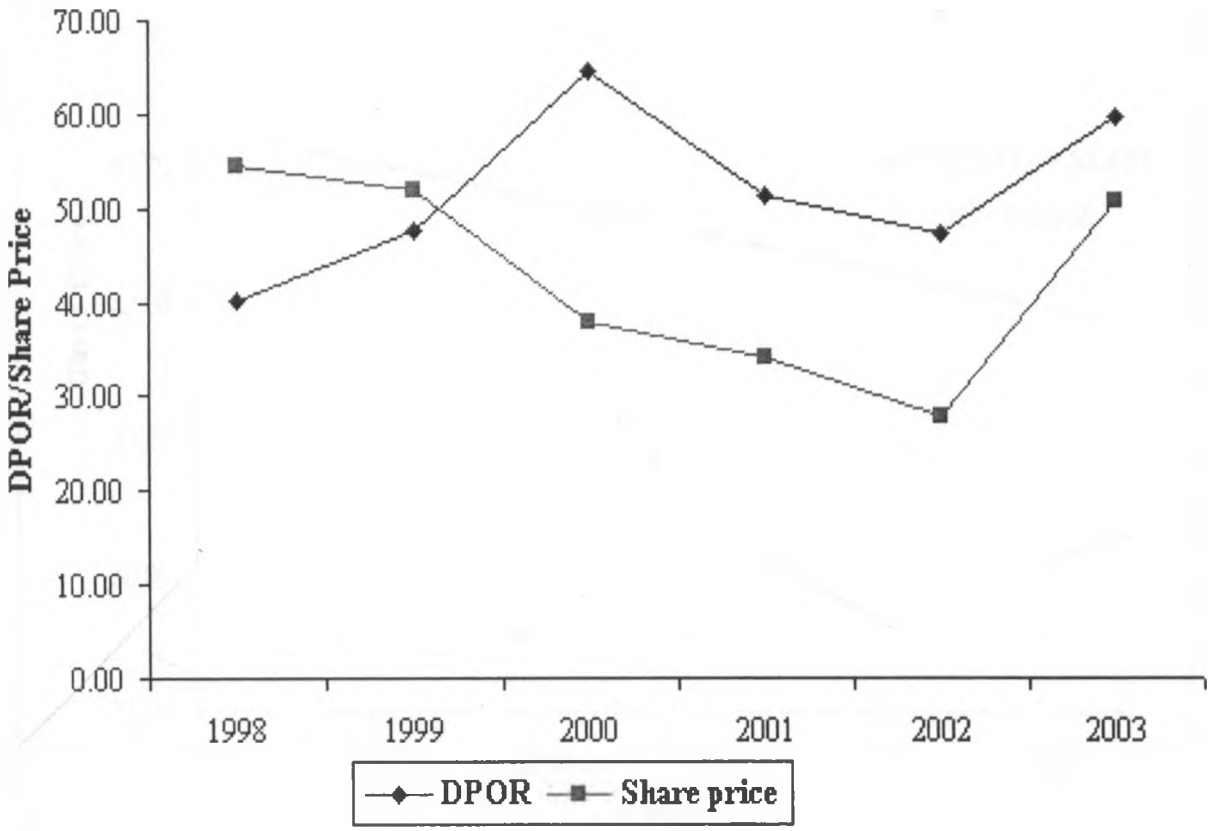


From the trend analysis, it can be observed that there was a positive relationship between DPOR and the value of the firms in the Industrial and Allied sector. As the DPOR sharply increased between 1999 and 2000, the share price decreased. As the DPOR gradually decreased between 2000 and 2002 the share price decreased. But between 2002 and 2003 the DPOR sharply increased and the share price sharply increased also.

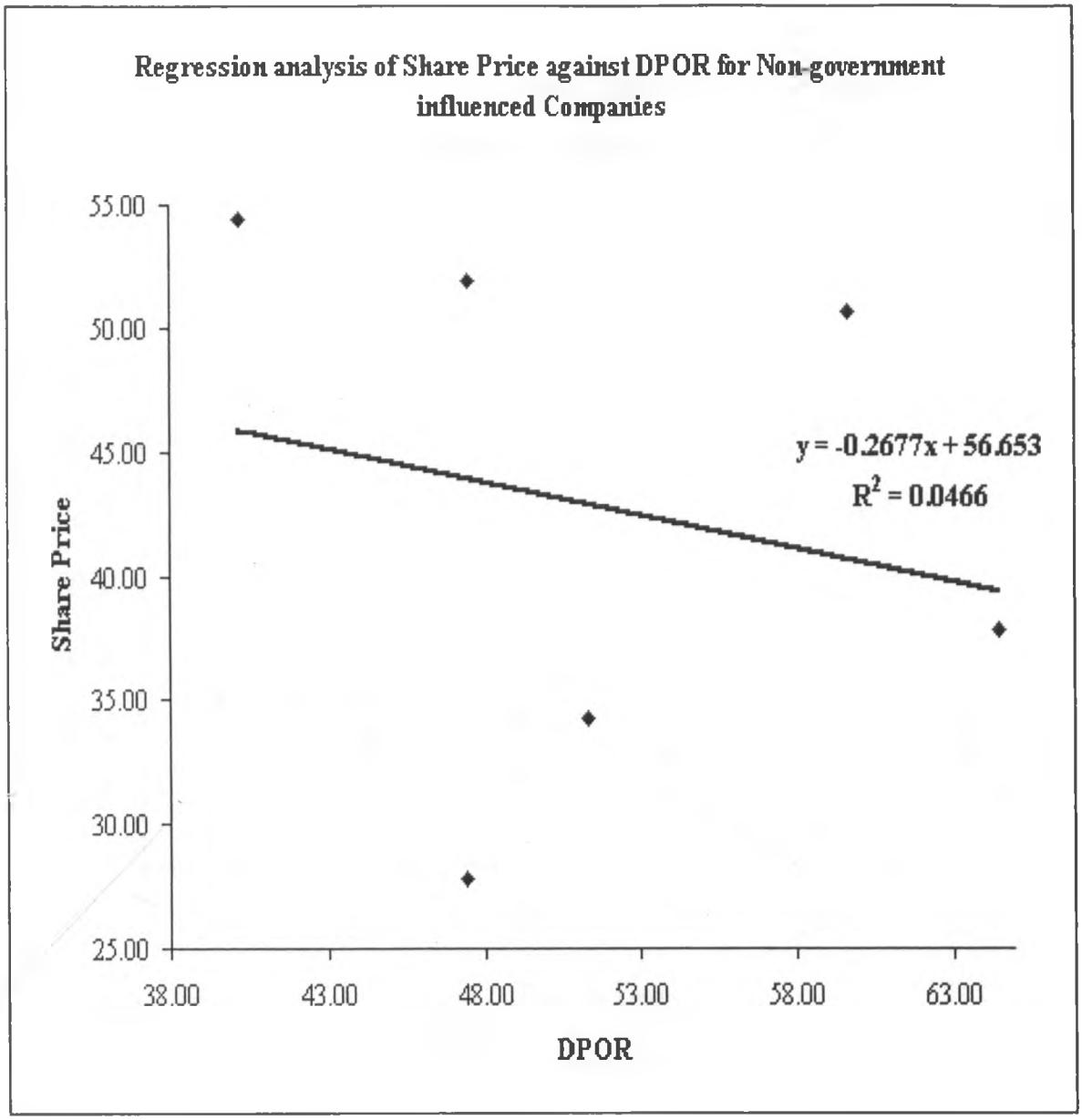


From the regression analysis results, there was a positive relationship between DPOR and the value of firms in the Industrial and Allied sector. The coefficient of correlation (r) was obtained to be 0.17 indicating a very weak relationship. The coefficient of determination (r^2) was obtained to be 0.029 or 2.915%. Therefore, 2.915% of the changes in the value of the firms in the Industrial and Allied sector were accounted for by the changes in DPOR.

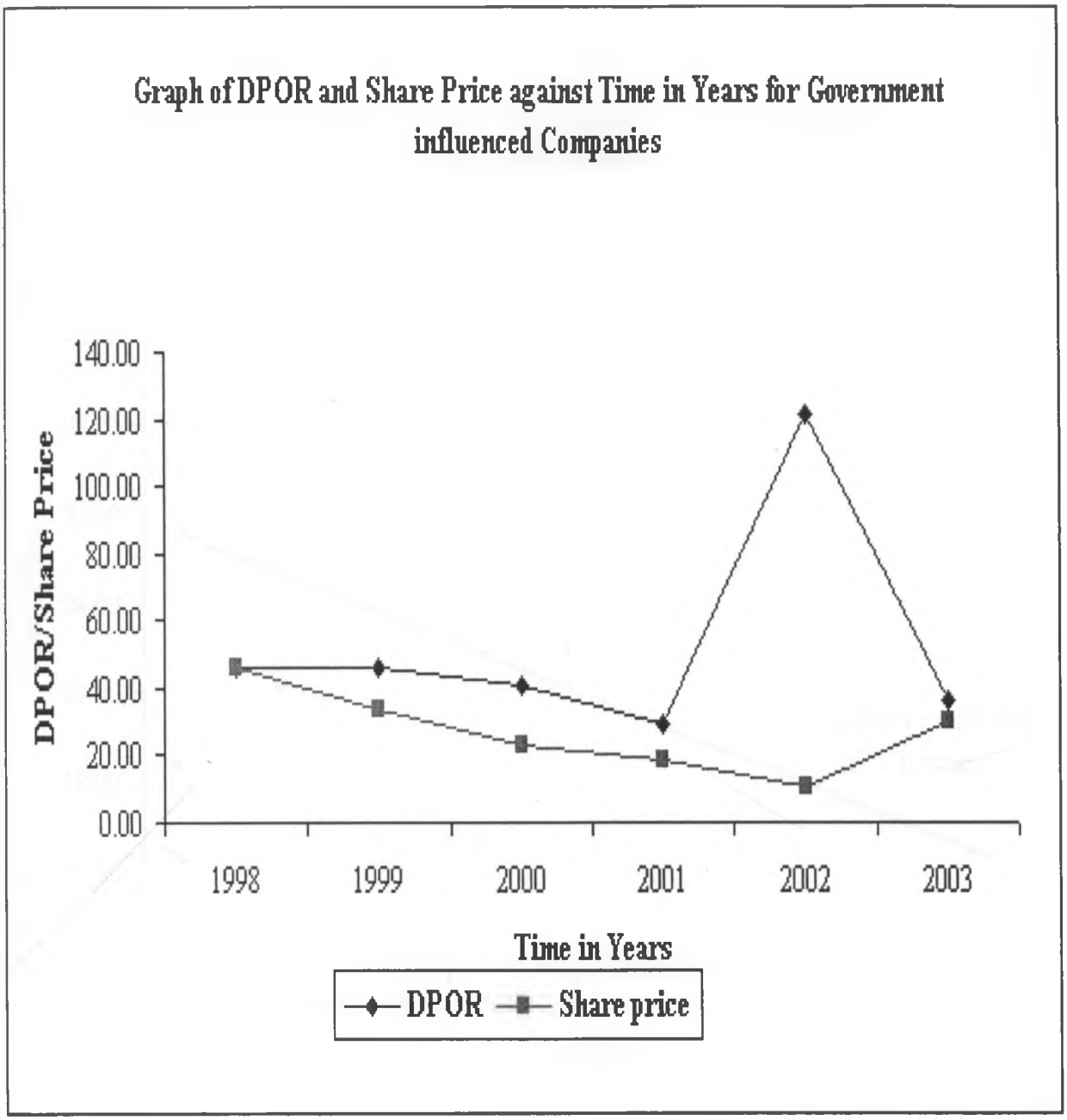
Graph of DPOR and Share Price against Time in Years for Non-government influenced Companies



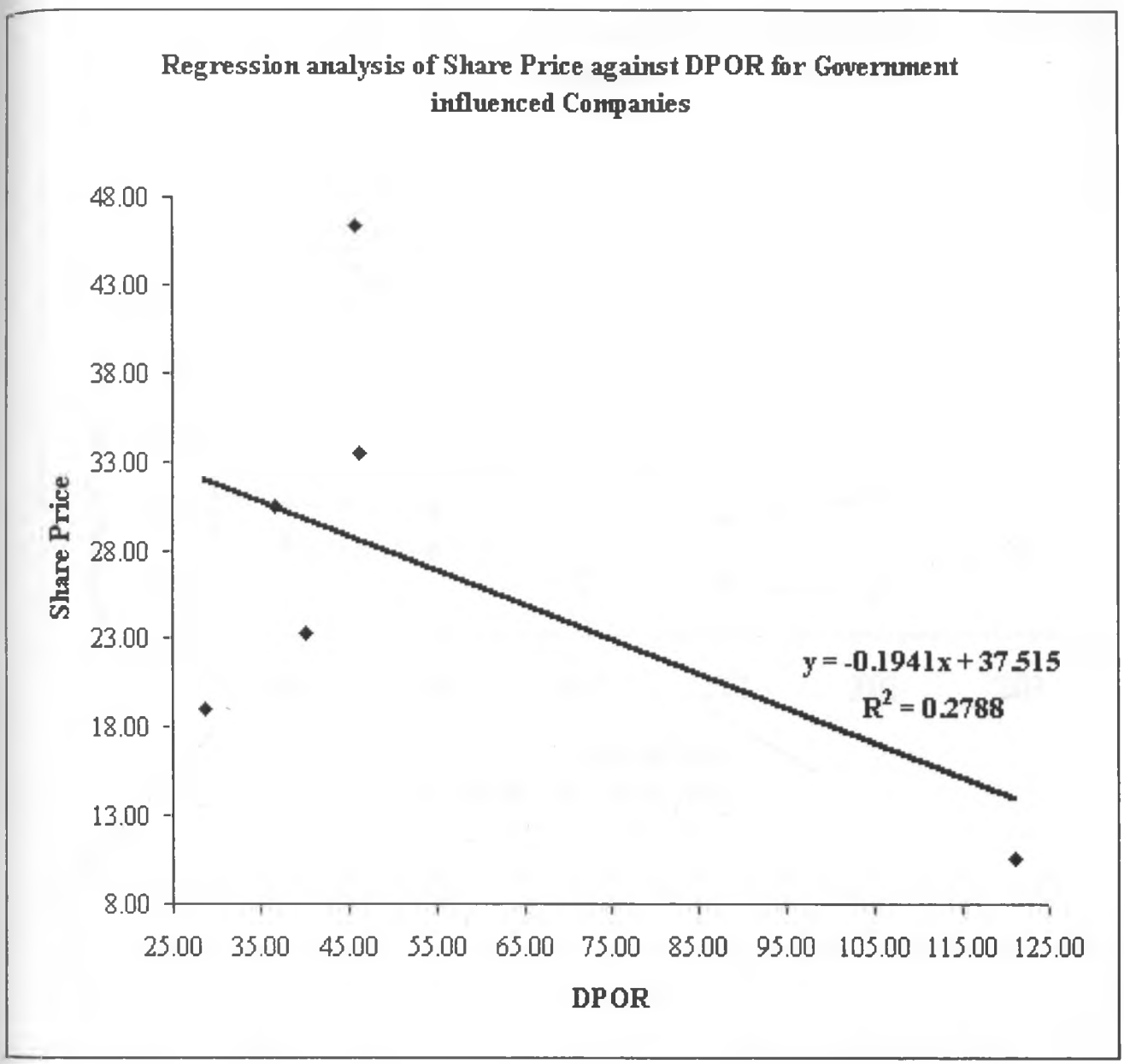
From the trend analysis it was observed that between 1998 and 1999, as the DPOR increased the share price gradually decreased. For the years 1999 to 2000 the DPOR sharply increased and the share price sharply decreased. Between 2000 and 2002 the DPOR decreased and the share price continued to decrease. Between 2002 and 2003 the DPOR sharply increased and the share price sharply increased also. From this analysis there is a negative relationship between the DPOR and the value of the non government influenced firms



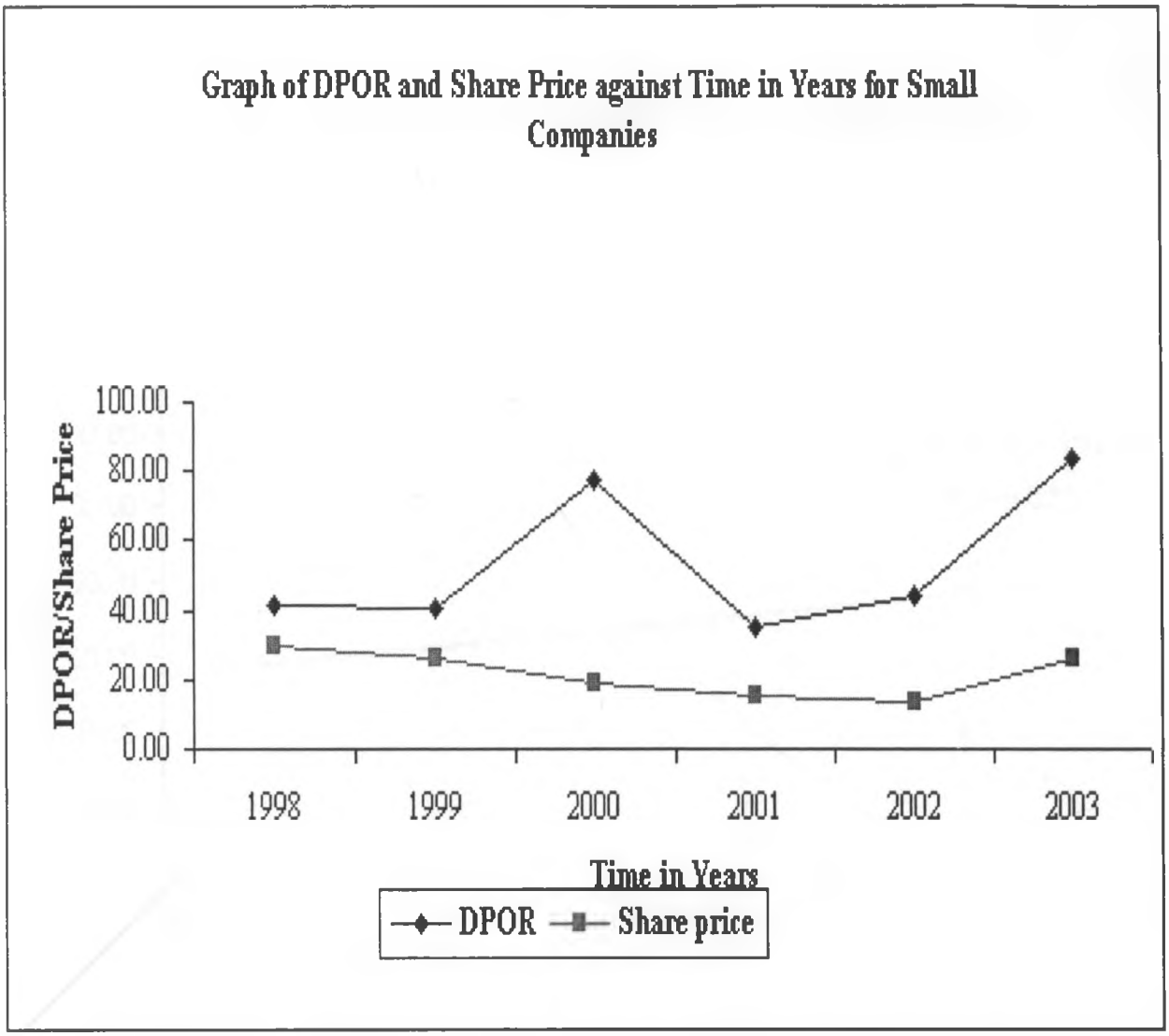
From the regression analysis results shown above, it can be observed that there is a weak negative relationship between DPOR and the value of the non-government influenced firms. The coefficient of correlation (r) for the non - government influenced firms was estimated at be -0.2676 which implies moderate negative relationship. The coefficient of determination (r^2) for the non-government influenced firms was estimated to be 0.0466 or 4.66% , which showed that 4.66% of the variations in the value of the non-government influenced firms are explained by the changes in the DPOR.



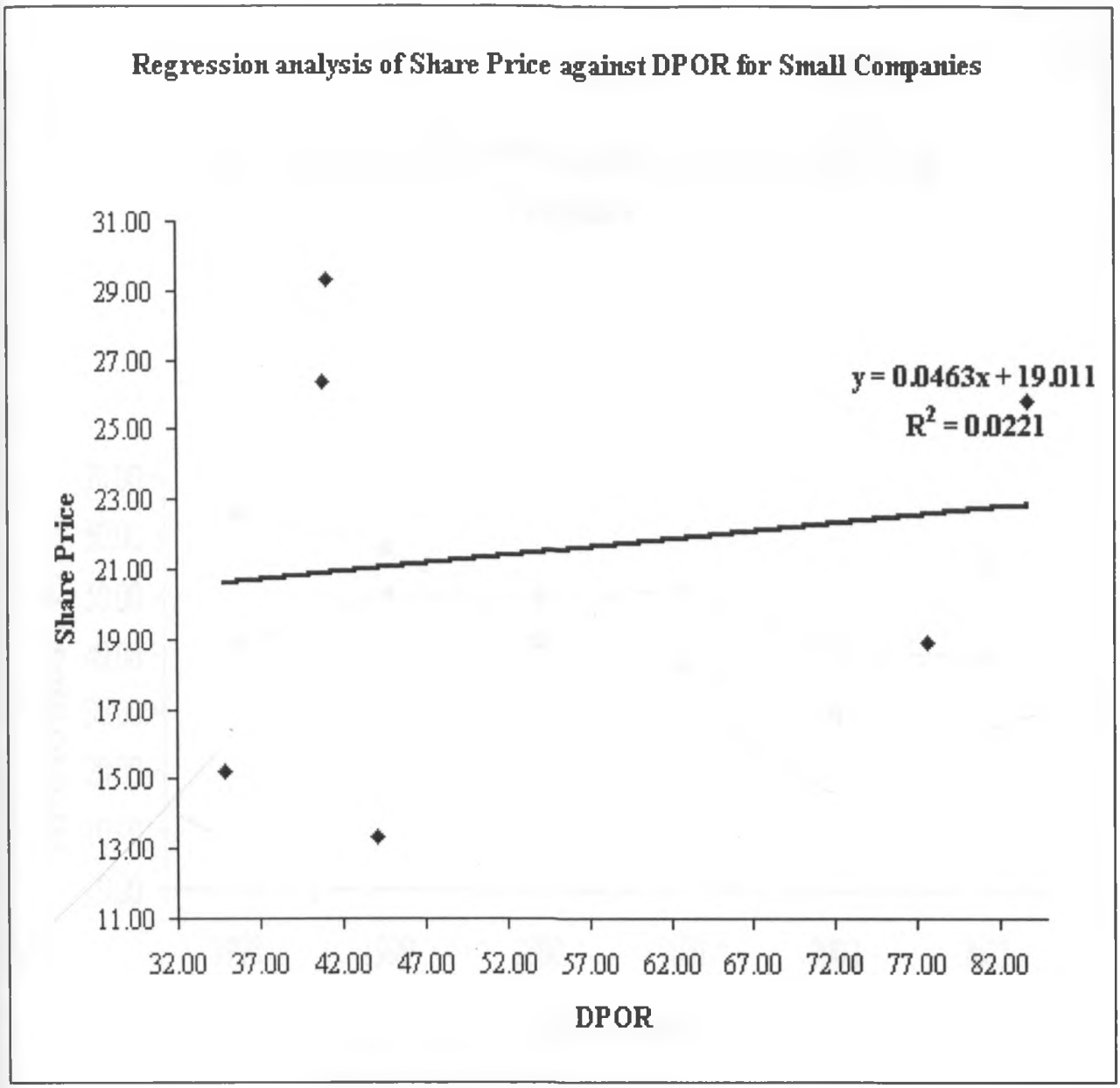
From the trend analysis graph it can be observed that as the DPOR gradually decreased the share price also decreased at a higher rate up to 2001. Between 2001 and 2002 the DPOR sharply increased but the share price continued to decrease. But between 2002 and 2003 the DPOR sharply decreased and the share price gradually increased. There was a negative relationship between the DPOR and the value of the firms which have government influence.



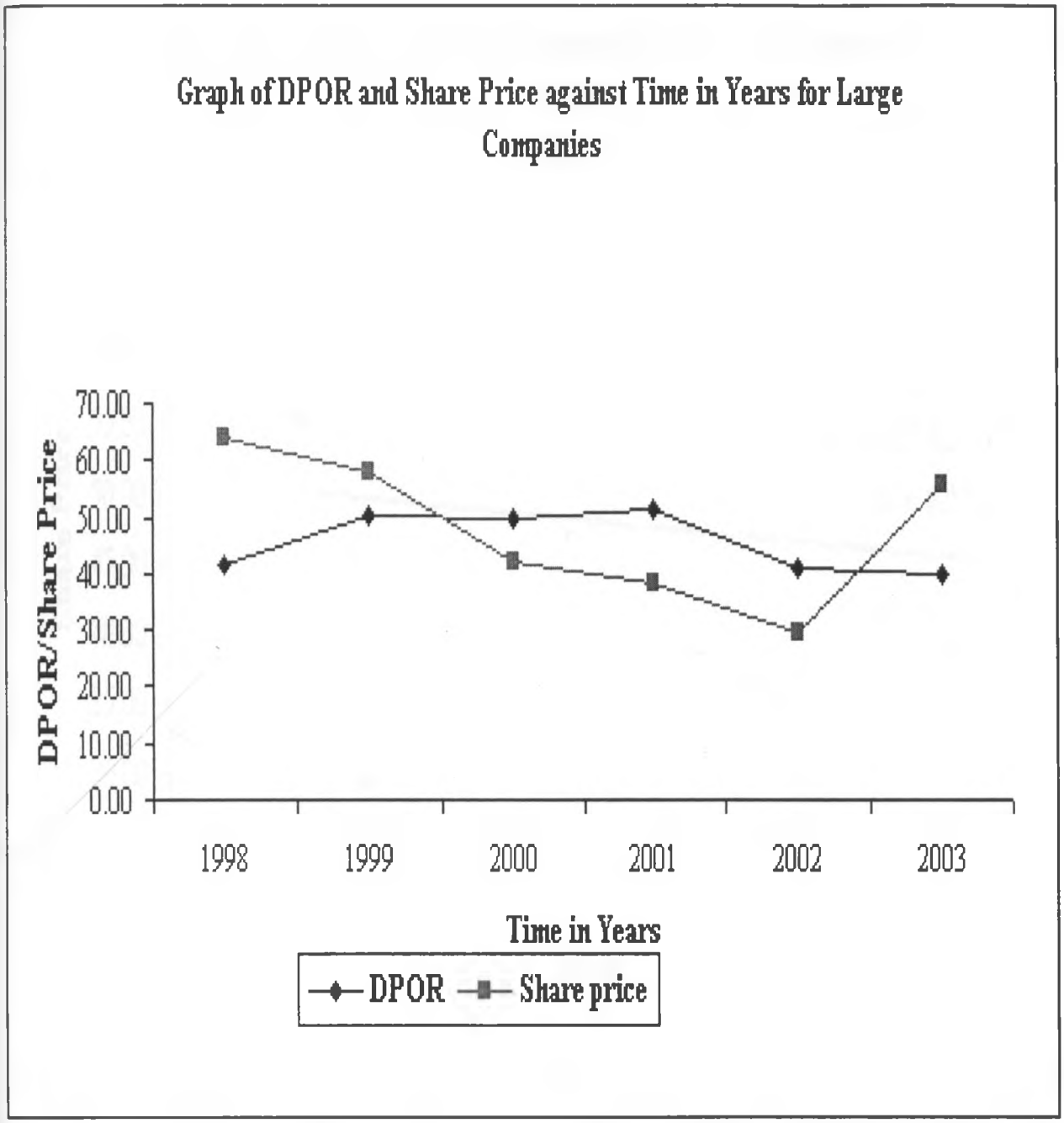
From the regression analysis results shown, it can be observed that there was a negative relationship between DPOR and the value of the government influenced firms. The coefficient of correlation (r) for the government influenced firms was obtained to be -0.2159, which implies moderate negative relationship. The coefficient of determination (r^2) for the government influenced firms was obtained to be 0.2788 or 27.88% which showed that 27.88% of the variations in the value of the firms influenced by the government are explained by the changes in the DPOR.



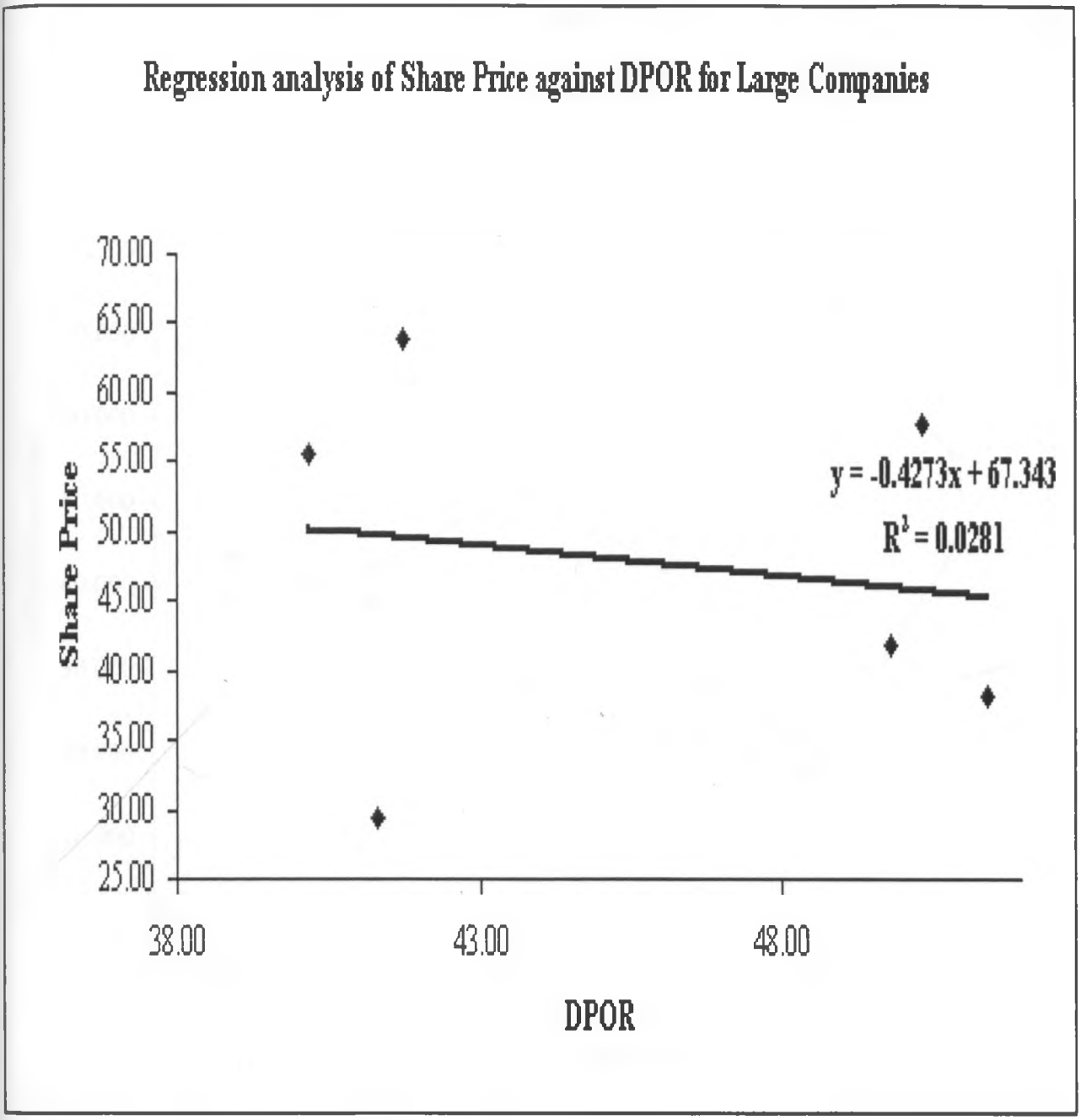
For the small companies it can be observed that as DPOR decreased gradually, the share price decreased gradually for the period 1998 to 1999. As the DPOR increased between 1999 and 2000 the share price decreased. For the period between 2000 and 2001 the DPOR decreased and the share price continued to decrease. Between 2001 and 2002 the DPOR started increasing while the share price decreased. Between 2002 and 2003 the DPOR sharply increased and the share price increased at a lower rate.



From the above regression analysis results, it can be observed that there was a weak positive relationship between the DPOR and the value of small firms quoted for the period 1998 to 2003. The coefficient of correlation (r) was obtained to be 0.148 which indicated a weak positive relationship since r is close to 0. The coefficient of determination (r^2) was obtained to be 0.0221or 2.21% which indicates that only 2.2% of the changes in the value of the firm are explained by the change of the DPOR.

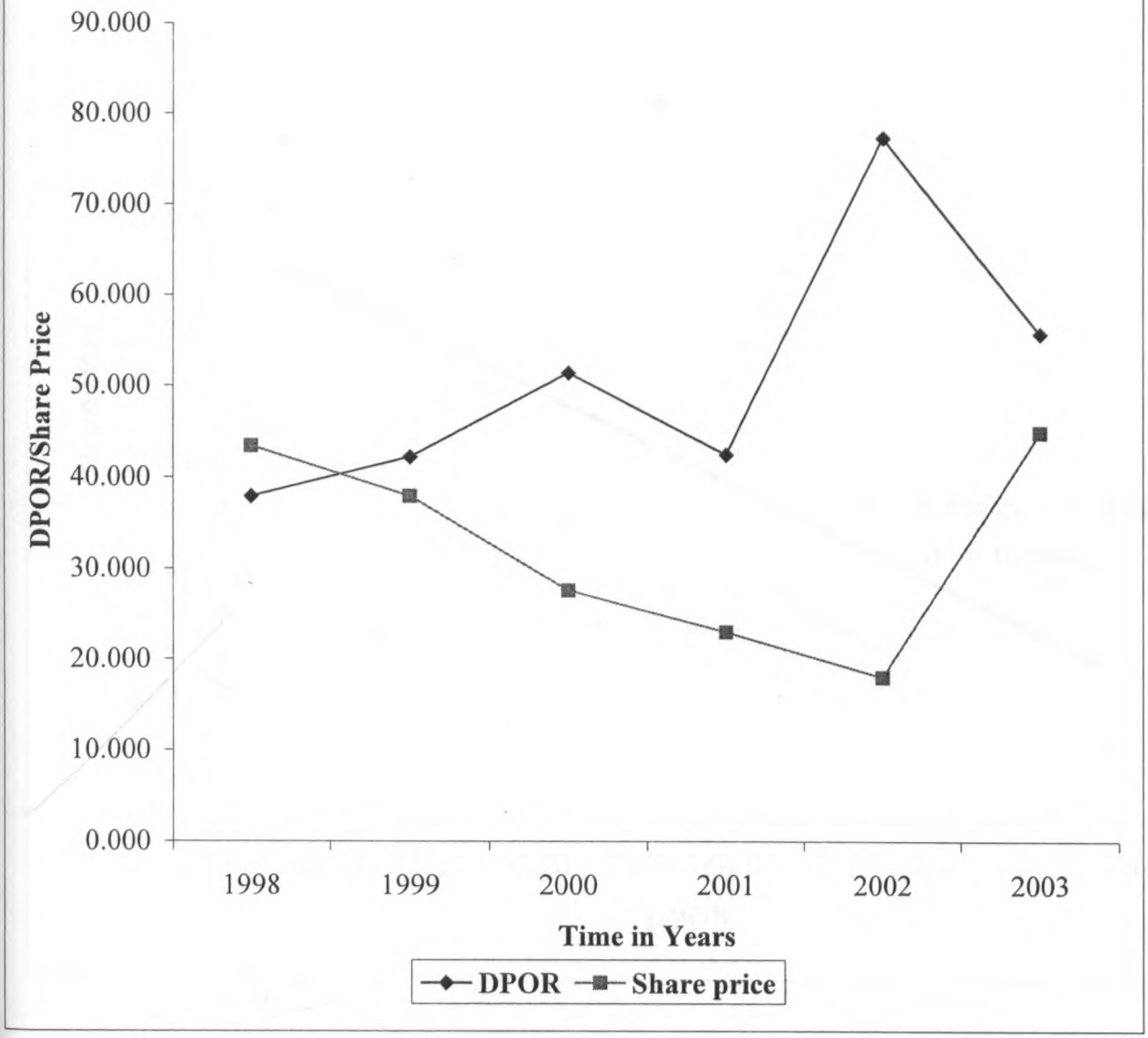


From the trend analysis graph of DPOR and share price, it was observed that as the DPOR increased between 1998 and 1999 the share price gradually decreased for the same period. Between 1999 and 2001 the DPOR gradually increased and the share price continued to decrease. For the period between 2001 and 2002 the DPOR decreased and the share price also decreased. In 2003 the DPOR slightly increased but the share price sharply increased. From this analysis there is a negative relationship between DPOR and the value of large firms.



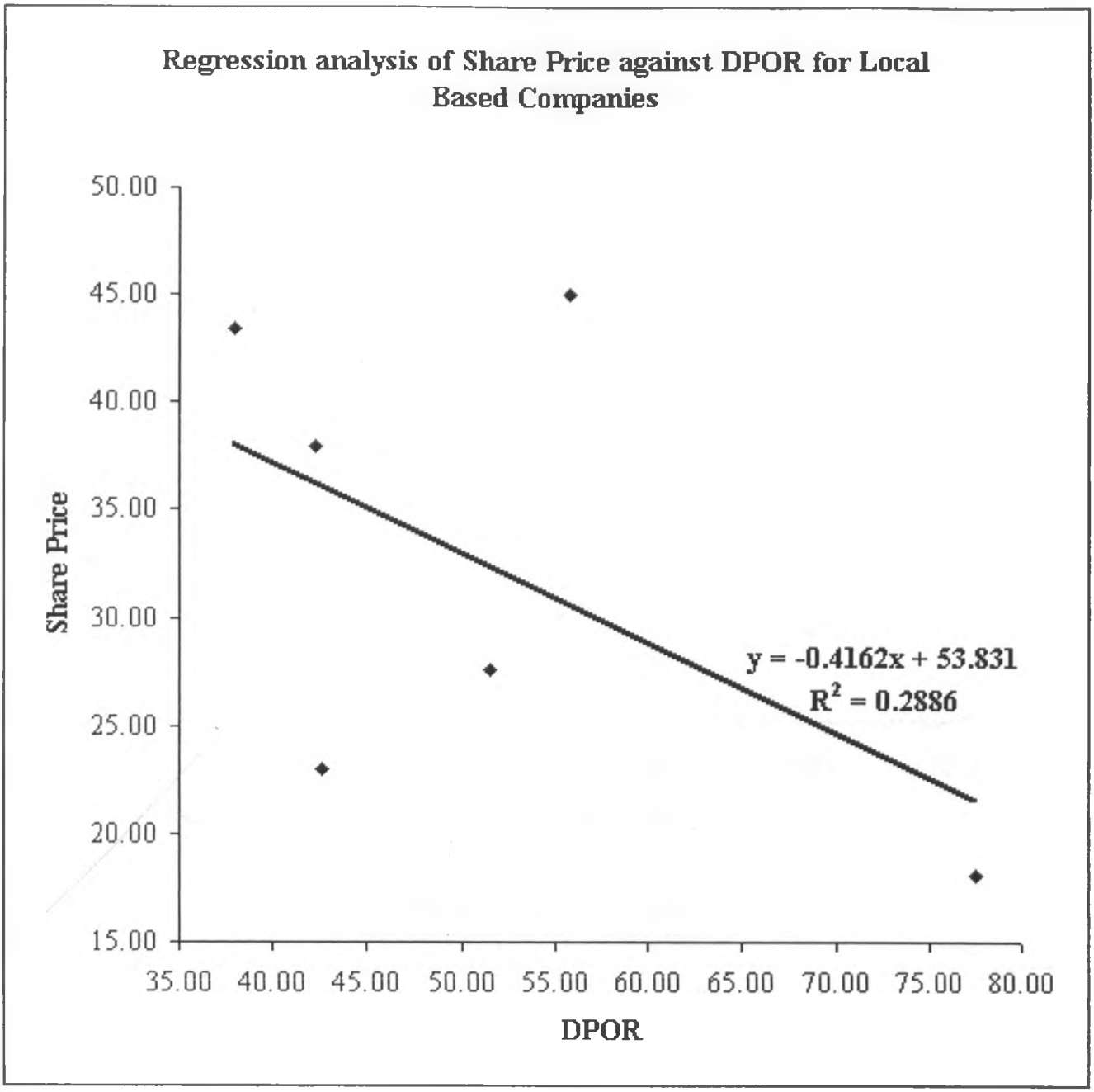
From the above regression analysis results, it can be observed that there was a weak negative relationship between the DPOR and the value of large firms quoted for the period 1998 to 2003. The coefficient of correlation (r) was obtained to be - 0.167 which indicated a weak negative relationship since r was close to 0. The coefficient of determination (r^2) was obtained to be 0.028 or 2.8% which indicated that only 2.8% of the changes in the value of the firm are explained by the change of the DPOR.

Graph of DPOR and Share Price against Time in Years for Local Based Companies

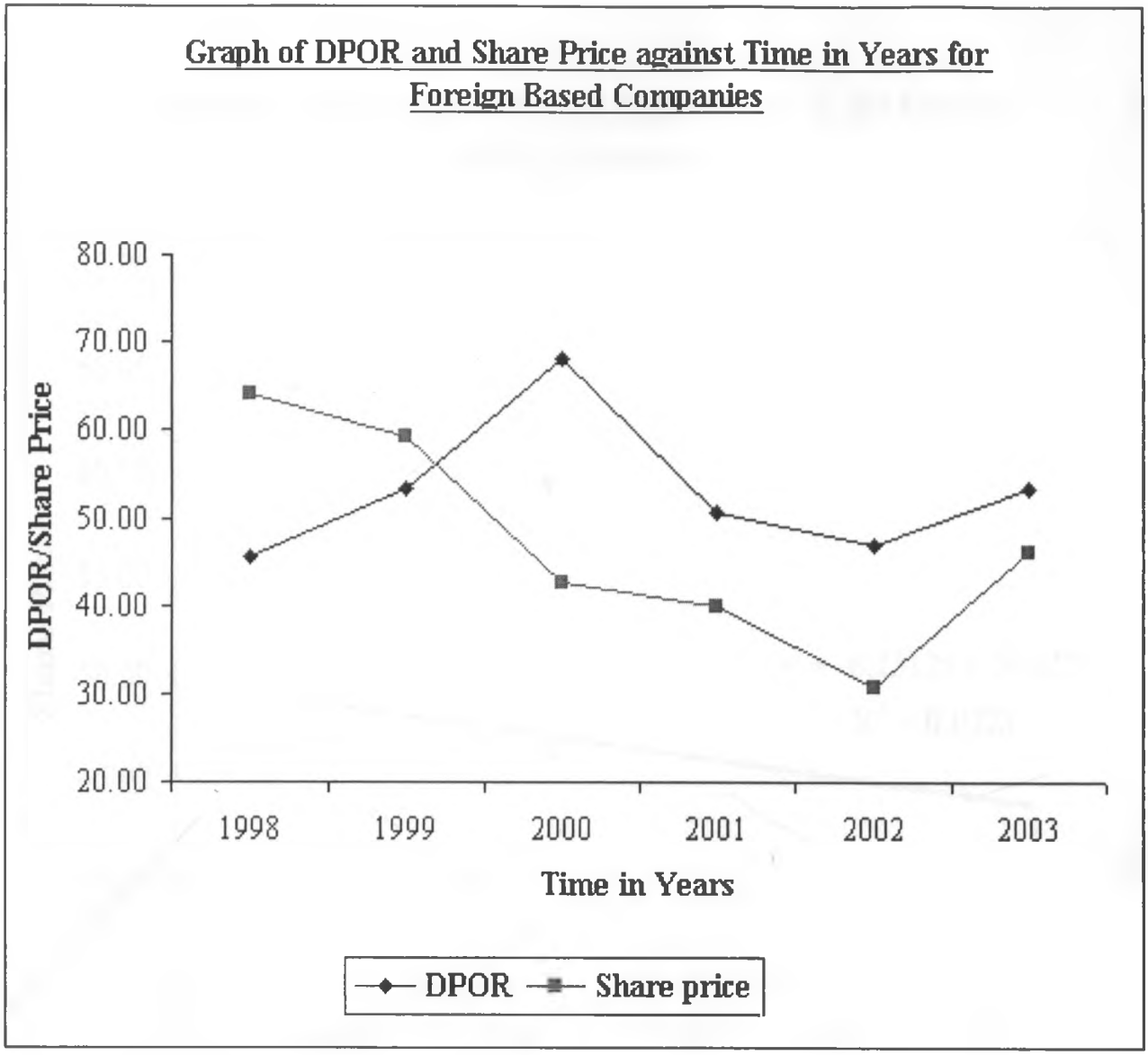


From the trend analysis graph it can be observed that between 1998 and 2000, the DPOR increased gradually for local based companies and the share price decreased during the same period. Between 2000 and 2001 the DPOR decreased and the share price also decreased. For the years between 2001 and 2002 the DPOR sharply increased and the share price continued to decrease.

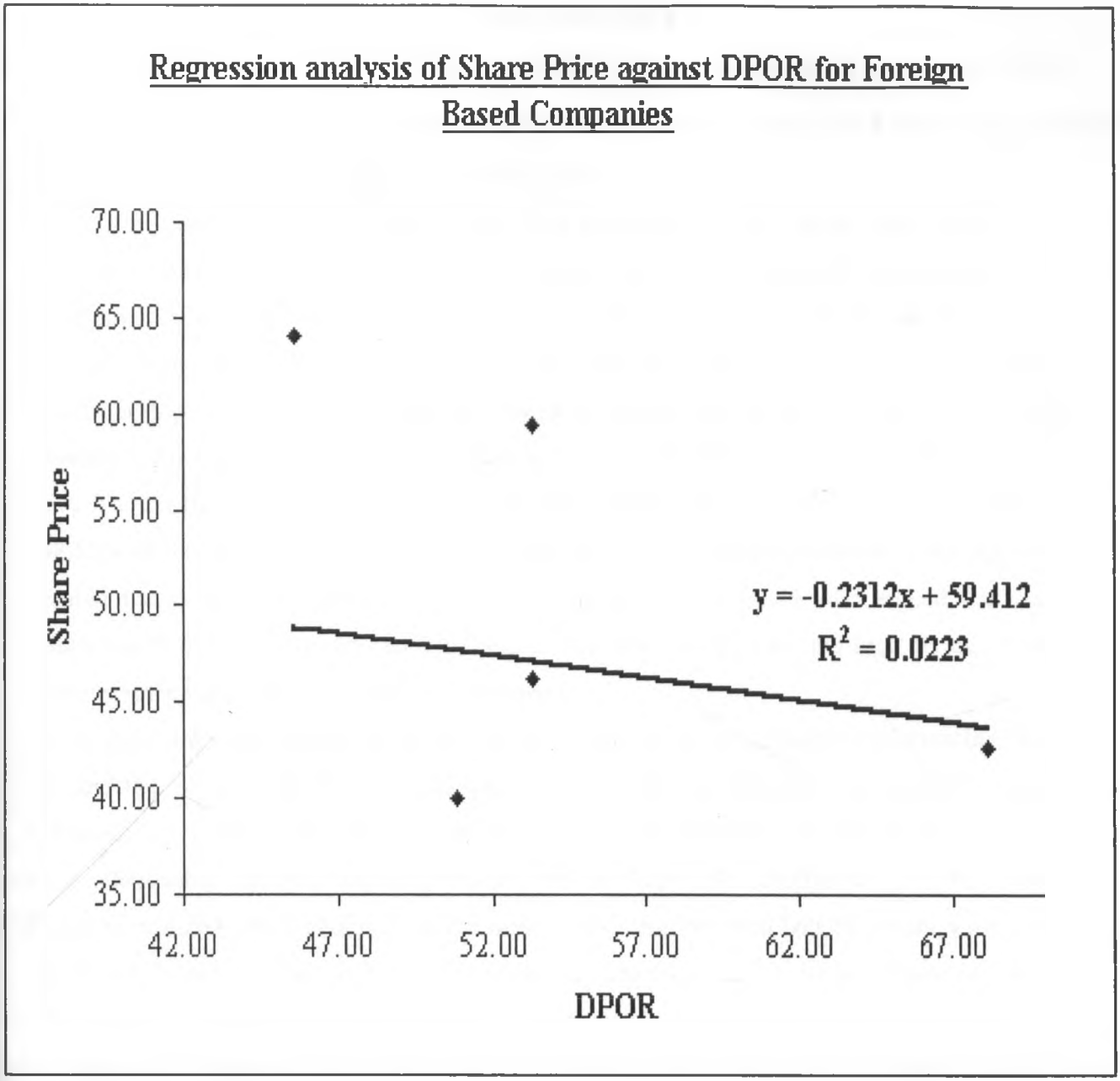
In 2003 the DPOR sharply decreased and the share price sharply increased. This indicated a negative relationship between the DPOR and the value of local based companies.



From the regression analysis results it can be observed that there was a negative relationship between DPOR and the value of the local based firms. The coefficient of correlation (r) for the local based firms was estimated to be -0.537,which implied a moderate negative relationship. The coefficient of determination (r^2) for the local based firms was estimated to be 0.2886 or 28.86% which showed that 28.86% of the variations in the value of the local based firms are explained by the change in the DPOR.



From the trend analysis graph of foreign based companies, it can be observed that as the DPOR gradually increased between 1998 and 2000 the share price decreased during the same period. However as the DPOR decreased between 2000 and 2001 the share price also decreased but at a lower rate. Between 2001 and 2002 the DPOR continued to decrease and the share price decreased at a higher rate. In 2003 the DPOR increased and the share price also increased at a higher rate. This indicated that there was a negative relationship between the DPOR and the value of the firm.



From the regression analysis results, it can be observed that there was a negative weak relationship between DPOR and the value of the firms quoted for the period 1998 to 2003. The coefficient of correlation (r) was obtained to be –0.149, which was negative and close to 0, implying that the DPOR and value of the foreign based firms have a weak and negative relationship. The coefficient of determination (r^2) was obtained to be 0.0223 or 2.23% which showed that 2.23% of the variation in the value of the foreign based firms was accounted(explained) for by the change in the DPOR.

CHAPTER FIVE

5.0 SUMMARY OF FINDINGS AND CONCLUSIONS, LIMITATIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

5.1 SUMMARY OF THE FINDINGS AND CONCLUSIONS

The objective of the study was to establish the effect of dividend policy on the value of the firms quoted at N.S.E as reflected by their share prices. On average, there was a significant relationship between the dividend pay out ratio (DPOR) and the value of the firm. In this regard, dividends are relevant to the value of common stock. From the regression and trend analysis results of the entire market it was observed that there was a negative relationship between DPOR and the value of the firm. The coefficient of correlation for the entire market was estimated to be –0.698 indicating that the relationship was negative. The coefficient of determination for the entire market was estimated to be 0.485, which showed that 48.85% of the changes in the value were explained by the change in DPOR. This supports the tax differential theory advanced by Litzenberger and Ramaswamy in 1979 who argued that tax rate on dividends was higher than tax rate on capital gains. Therefore, a firm that pays high dividends will have a lower value since shareholders pay more on dividends.

However, from the sectoral analysis, it was observed that there was a positive relationship between the DPOR and the value of the firms across the sectors but the relationship was relatively weak. In the Agricultural Sector, the coefficient of correlation (r) was estimated to be 0.194, which indicated a weak positive relationship. In the Commercial and Service Sector the coefficient of correlation (r) was estimated to be 0.264 which also indicated a weak relationship between DPOR and the value of the firms in this sector. In the Finance and Investment Sector, there was also a weak relationship between the DPOR and the value of the firms. The coefficient of correlation (r) was estimated to be 0.196 while in the Industrial and Allied sector, it was observed that there was also a weak positive relationship between the DPOR and the value of the firms. The coefficient of correlation for this sector was estimated to be 0.17, which implied a weak relationship. This supports information signalling effect theory advanced by Ross in 1977. He argued that in an inefficient market, management could use dividend policy to signal important information to the market, which is only known to them. For example, if management pays high dividends, it signals high-expected profits in future to maintain high dividend levels. However, dividend announcements may not possibly reflect in the value of the firm (share price) because of weak form efficiency (Efficient Market Hypothesis) in the developing markets. This explains why there was a weak relationship between the value of the firm and dividend pay out ratio (DPOR) in different sectors.

From the analysis it was also observed that there was a negative relationship between DPOR and the value of both government and non-government influenced firms. The coefficient of correlation(r) for the

non-government influenced firms was estimated to be –0.2676, which implied a negative relationship. The coefficient of determination (r^2) for the non-government influenced firms was estimated to be 0.0466 or 4.66%, which showed that 4.66% of the variations in the value of the non-government influenced firms were explained by the changes in DPOR. The coefficient of correlation(r) of the government influenced firms was estimated to be –0.2159 and the coefficient of determination (r^2) was estimated to be 0.2788 or 27.88% which showed that 27.88% of the variations in the value of the firms influenced by the government are explained by the changes. The dividend announcements by the government-influenced firms have more impact on the market than the non-government influenced firms.

It was also observed from the analysis that large companies generally have a greater impact on the markets than small companies/ firms. The coefficient of correlation (r) for large firms was obtained to be –0.167, which indicated a negative relationship. The coefficient of correlation (r) for small firms was obtained to be 0.148, which indicated a positive relationship. However, the market position indicated a negative relationship implying that dividend announcements by large firms have more influence on the market than small firms. Generally, there are more large firms quoted at the Nairobi Stock Exchange than small firms because of the corporate regulations involved before a firm is quoted. Large firms also pay dividends more consistently and at a higher rate than small firms hence impacting more on the market.
The findings of this research also indicated that there was a negative relationship between DPOR and the value of local based and foreign-based firms. The coefficient of correlation (r) for the local based firms was estimated to be –0.537, which implied a negative relationship. The coefficient of determination for the local based firms was estimated to be 0.2886 or 28.86%, which showed that 28.86% of the variations in the value of the local based firms were explained by the changes in the DPOR. The coefficient of correlation (r) was estimated to be –0.149, which implied a negative relationship. The coefficient of determination (r^2) was obtained to be 0.0223 or 2.23% which showed that 2.23% of the variations in the value of the foreign based was explained by the change in DPOR. This showed that local based firms have more impact on the market than the foreign based firms.

The findings of this research shows that dividend policy is relevant to the value of the firm. Gordon and Lintner in their bird-in-hand theory of 1962, argue that dividend policy is not passive residue determined by the firm's need for investment funds. It matters how the earnings are divided between dividend payment to shareholders and retention. Therefore the optimal dividend policy does exist. However, the relationship between dividend policy and the value of the firms quoted was weak implying that there are other factors (investment and financing policy) other than dividend policy that affect the value of the firm. However, a firm paying high dividends will have a lower value since shareholder pay more on dividends, all other factors kept constant.

5.2 LIMITATIONS OF THE STUDY

The study mainly relied on secondary data obtained from the Nairobi Stock Exchange, which means the researcher placed high reliability on this data.

Due to the limitation of time, the study could only cover companies quoted at Nairobi Stock Exchange. The study could not have considered unquoted companies.

The researcher used a sample of 43 companies, which have been consistently quoted at N.S.E. which was small to make any generalisations across all the industries.

5.3 RECOMMENDATIONS TO POLICY MAKERS

Dividend policy have an effect on the value of the firms quoted at N. S. E thus, companies (firms) should pay dividends to maintain high values. This is consistent with the dividend theories of Bird-in-hand theory, information signalling effect theory, tax differential theory and agency theory. These theories propose that dividend policy is relevant to the value of the firm; other factors kept constant. It is also recommended that firms should maintain a clear and consistent dividend policy for the dividend policy to affect the value of the firm.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

A similar study could be carried out on unquoted companies to see whether the same results also hold. The variables in this study can also be tested on companies not quoted on the Nairobi Stock Exchange.

The dividend pay out ratio (DPOR) and share prices for other years can also be used to try and validate the results of this study.

Due to the shortcomings of regression models, other models can be used to explain the various relationships between dividends pay out ratios and the value of the firms.

REFERENCES

Bierman H. (1986), Financial Management for Decision Making., Collier Macmillan, New York,U.S.A.

Brealey, Myers, Marcus,(1985) Fundamentals of Corporate Finance, McGraw-Hill, Inc, New York U.S.A.

Brigham E. and Gapesnski L.C.(1994) , Financial Management; Theory and Practice, Dryden Press, Forthworth, U. S.A.

Brigham F. E. (1986) , Fundamentals of Financial Management, 5th Edition, Dryden, Hinsdale, U.S.A.

Brittain J. A. (1966) , Corporate Dividend Policy, Brookings Institution, Washington D.C. , U.S.A.

Gitman L.J.(1198),Principles Of Managerial Finance, Brief Edition, Addison-Wesley, Mexico city,U.S.A.

Helfert E. (1966) , Valuation, Concepts and Practice, Wadsworth Publishing co., Inc, Belmont, California, U.S.A.

Hirt Geoffrey (1981) , Fundamentals of Investment Management, Richard, Irwin,Homewood,Illinois U.S.A.

Kallberg J.G.(1993), Corporate Liquidity; Management and Measurement, Irwin, Homewood, U.S.A.

Karanja J.(1987),The Dividend Practices of Publicly Quoted Companies in Kenya. Unpublished MBA Project, UON, Nairobi.

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

Kuria J.(2001),A study of Dividend Policies ,Growth in Assets ,Return on Assets, and Return on Equity at N.S.E., Unpublished MBA Project, UON, Nairobi

Levy H. and Sarnat M.(1990), Capital Investment and Financial Decisions, 5th Edition, Irwin, Illinois.

Pandey I.M.(1991) , Financial Management, Vikas Publishing House, New Delhi,India.

Puxity G.(1991), Financial Management; Methods and Meaning, Second Edition, Chapman and Hall, NewYork, U.S.A.

Ross, Westerfield, Jaffe, (1993), Corporate Finance, second Edition, Irwin, Homewood, U.S.A.

Seitz E (1990) , Capital Budgeting and Long-term Financing Decisions, The Dryden Press, Chicago, U.S.A.

Van Horne J. (1983) , Financial Management and Policy ,6th Edition, Prentice-Hall Inc., Englewood, New Jersey.

Walter J.E. (1967) , Dividend Policy and Enterprise Valuation, Wadsworth publishing company Inc, Belmont, California, U.S.A.

Weston J. and Brigham E. F. (1981) , Managerial Finance, 7th Edition, The Dryden press, Hinsdale, Illinois

APPENDIX I

TABLES OF YEARLY RESULTS OF DPS, EPS, DPOR AND SHARE PRICES

YEAR	1998				1999			
CTOR/COMPANY	DPS	EPS	DPOR (Xi)	SHARE PRICE (Yi)	DPS	EPS	DPOR (Xi)	SHARE PRICE (Yi)
ricultural sector								
oke Bond	0.00	-4.85	0.00	133.00	4.00	4.70	85.11	148.00
kuzi	2.75	10.32	26.65	143.00	2.75	10.32	26.65	121.00
Vipingo	0.40	0.99	40.40	7.00	0.40	0.99	40.40	6.00
ini	3.00	3.93	76.34	75.00	3.00	3.20	93.75	54.00
Williamson	7.50	33.03	22.71	140.00	7.50	31.09	24.12	143.00
pchorua Tea	7.50	19.06	39.35	81.00	7.50	19.06	39.35	150.00
gads	2.00	3.91	51.15	37.00	4.75	7.58	62.66	42.00
nuru Tea	65.00	83.34	77.99	755.00	85.00	103.81	81.88	650.00
mmercial & Service Sector								
humi	5.00	6.48	77.16	46.00	5.00	3.25	153.85	48.00
IC Holdings	2.50	15.50	16.13	35.25	0.75	8.07	9.29	28.25
ndard News	1.00	4.00	25.00	35.50	0.10	-0.21	-47.62	13.40
Baumann	0.50	-2.10	-23.81	15.50	1.25	-2.01	-62.19	13.40
rshalls	4.00	7.55	52.98	42.50	4.00	2.26	176.99	14.00
nya Airways	0.75	1.84	40.76	7.05	1.00	2.85	35.09	8.20
MG	2.75	15.98	17.21	116.00	1.65	9.16	18.01	129.00
S Serena	1.00	1.07	93.46	13.00	1.00	1.72	58.14	13.60
press Kenya	2.20	2.65	83.02	30.00	1.70	1.73	98.27	25.00
ance & Investment								
rclays	12.00	20.98	57.20	102.00	11.00	19.44	56.58	112.00
C Bank	2.25	8.01	28.09	41.00	1.75	4.71	37.15	30.00
nChart	3.00	6.87	43.67	41.75	5.40	8.67	62.28	50.00
C.B.	7.00	20.32	34.45	70.00	6.00	8.15	73.62	46.00
F.C.K.	1.50	3.25	46.15	16.10	1.50	2.48	60.48	12.50
C Bank	0.67	2.58	25.97	17.05	0.67	2.39	28.03	15.00
mond Trust.	0.60	-4.21	-14.25	22.00	0.80	2.60	30.77	23.50
ilee	1.75	4.48	39.06	30.50	1.75	3.88	45.10	28.50
African Ins	1.75	6.94	25.22	30.00	1.75	5.79	30.22	36.00
D.C	2.50	6.07	41.19	39.25	3.00	5.30	56.60	48.00
B.K.	1.25	1.94	64.43	11.55	0.50	-14.11	-3.54	6.00
y Trust	1.50	5.83	25.73	30.75	2.00	5.30	37.74	22.50
dustrial & Allied								
A Cables	2.00	3.14	63.69	22.25	2.00	3.14	63.69	19.90
ga	10.00	20.81	48.05	56.00	1.20	-11.92	-10.07	32.25
tal Kenya	2.60	2.32	112.07	42.00	3.00	5.73	52.36	47.50
own Berger	1.35	0.29	465.52	9.50	1.35	1.22	110.66	8.65
A. T.	6.00	8.42	71.26	45.00	7.25	15.43	46.99	86.00
A.B.L.	6.00	13.29	45.15	53.00	6.00	2.27	264.32	78.00
mburi	1.12	2.15	52.09	35.00	0.75	1.57	47.77	26.50
estone	2.50	3.61	69.25	17.00	1.50	2.20	68.18	16.50
nya Oil	4.00	18.89	21.18	57.00	0.25	23.67	1.06	60.50
hi-River Min	0.30	0.57	52.63	9.00	0.00	0.17	0.00	5.50
O.C.	2.80	8.20	34.15	57.50	3.50	7.80	44.87	71.50
nlop	17.95	38.20	46.99	154.00	2.00	4.35	45.98	15.00
nya Power	8.00	29.42	27.19	190.00	8.00	27.72	28.86	113.00
A.Portland	0.33	0.84	39.29	23.50	0.33	4.17	7.91	14.00
Orchards	0.25	1.39	17.99	19.40	0.25	1.39	17.99	5.00
rbacid	1.80	6.26	28.75	72.00	2.00	8.57	23.34	69.00

YEAR	2000				2001			
SECTOR/COMPANY	DPS	EPS	DPOR (Xi)	SHARE PRICE (Yi)	DPS	EPS	DPOR (Xi)	SHARE PRICE (Yi)
Agricultural sector								
Brooke Bond	4.00	4.40	90.91	74.00	4.00	4.40	90.91	101.00
Kakuzi	2.75	10.32	26.65	66.50	2.00	1.46	136.99	40.00
Kea Vipingo	0.00	-0.12	0.00	3.85	0.00	-0.57	0.00	2.70
Kasini	0.50	0.32	156.25	35.00	0.50	4.91	10.18	26.75
G. Williamson	7.50	8.94	83.89	75.00	7.50	15.56	48.20	104.00
Kapchorua Tea	7.50	3.80	197.37	150.00	7.50	3.80	197.37	140.00
Kaagads	1.25	1.14	109.65	25.00	1.25	-1.33	-93.98	20.50
Limuru Tea	30.00	46.50	64.52	650.00	30.00	46.50	64.52	640.00
Commercial & Service Sector								
Uchumi	5.00	3.00	166.67	42.75	5.00	5.33	93.81	45.75
CMC Holdings	0.75	6.61	11.35	16.80	0.75	5.05	14.85	8.80
Standard News	0.00	-9.40	0.00	6.10	0.10	9.84	1.02	6.00
A.Baumann	1.25	3.30	37.88	13.80	0.00	1.12	0.00	10.00
Marshalls	0.00	-14.67	0.00	19.30	0.00	-2.50	0.00	18.30
Kenya Airways	0.00	2.61	0.00	8.00	1.25	6.33	19.75	8.70
NMG	1.75	9.16	19.10	75.00	1.65	5.70	28.95	47.50
TPS Serena	1.00	2.05	48.78	15.95	1.00	2.15	46.51	16.50
Express Kenya	1.70	1.73	98.27	19.05	0.00	-1.24	0.00	12.00
Finance & Investment								
Barclays	10.00	14.60	68.49	86.00	10.25	11.20	91.52	81.50
NIC Bank	1.80	3.65	49.32	21.00	1.80	3.79	47.49	15.25
StanChart	7.40	10.54	70.21	48.00	11.00	8.80	125.00	56.50
K.C.B.	0.00	-13.86	0.00	28.00	0.00	-4.14	0.00	19.10
H.F.C.K.	0.50	0.61	81.97	7.05	0.50	0.45	111.11	5.00
CFC Bank	0.67	1.89	35.45	9.80	0.67	1.61	41.61	8.45
Diamond Trust.	0.80	1.95	41.03	20.00	0.60	2.06	29.13	11.55
Jubilee	1.75	3.88	45.10	22.00	1.75	2.96	59.12	15.60
Pan African Ins	1.75	5.79	30.22	20.00	1.75	-1.46	-119.86	12.50
I.C.D.C	3.00	5.30	56.60	49.50	2.00	6.02	33.22	47.00
N.B.K.	0.00	-12.14	0.00	3.60	0.00	-11.03	0.00	3.00
City Trust	2.00	2.00	100.00	20.00	2.00	2.24	89.29	16.00
Industrial & Allied								
E.A Cables	4.50	1.08	416.67	8.00	1.10	1.50	73.33	10.00
Unga	0.00	-5.84	0.00	15.40	0.00	-0.81	0.00	7.75
Total Kenya	3.40	9.85	34.52	51.00	3.40	9.85	34.52	27.00
Crown Berger	1.00	1.05	95.24	12.50	0.50	0.79	63.29	5.95
B. A. T.	10.50	15.92	65.95	57.00	10.92	15.92	68.59	54.00
E.A.B.L.	6.00	11.49	52.22	65.50	8.29	2.25	368.44	80.00
Bamburi	1.00	1.73	57.80	29.25	1.00	1.73	57.80	29.00
Firestone	1.50	2.20	68.18	12.95	1.00	1.21	82.64	7.00
Kenya Oil	7.50	29.32	25.58	82.00	7.50	21.61	34.71	73.50
Athi-River Min	0.00	0.17	0.00	4.55	0.00	0.39	0.00	4.50
B.O.C.	3.50	7.80	44.87	47.25	3.55	3.83	92.69	31.00
Dunlop	0.40	0.60	66.67	7.50	0.40	0.76	52.63	5.00
Kenya Power	2.00	16.47	12.14	51.50	8.00	-20.35	-39.31	29.00
E.A.Portland	0.33	4.17	7.91	12.40	0.33	3.25	10.15	11.00
K. Orchards	0.25	1.39	17.99	5.00	0.25	1.39	17.99	5.00
Carbacid	4.00	11.50	34.78	50.00	2.75	11.50	23.91	46.00

ECTOR/COMPANY	2002				2003			
	DPS	EPS	DPOR (Xi)	SHARE PRICE (Yi)	DPS	EPS	DPOR (Xi)	SHARE PRICE (Yi)
gricultural sector								
rooke Bond	2.00	4.57	43.76	56.50	2.50	2.82	88.65	77.00
akuzi	0.00	-2.31	0.00	28.00	0.00	0.39	0.00	19.85
ea Vipingo	0.00	-0.11	0.00	3.00	0.25	0.41	60.98	5.00
sini	1.00	2.91	34.36	15.00	0.50	-0.81	-61.73	21.50
. Williamson	0.50	-3.93	-12.72	41.25	3.75	5.29	70.89	84.00
apchorua Tea	0.50	-4.08	-12.25	137.00	3.75	5.10	73.53	105.00
aagads	0.00	0.38	0.00	19.00	0.50	0.48	104.17	17.75
imuru Tea	0.00	-4.97	0.00	394.00	3.00	3.46	86.71	394.00
ommercial & Service Sector								
chumi	1.60	0.15	106.67	16.60	0.50	1.49	33.56	32.00
MC Holdings	0.75	3.66	20.49	11.80	1.00	6.29	15.90	44.75
tandard News	0.00	4.90	0.00	4.00	0.00	-0.23	0.00	19.35
.Baumann	1.00	0.67	149.25	8.60	0.00	-12.52	0.00	5.50
Marshalls	0.00	-21.45	0.00	18.30	0.00	2.03	0.00	6.45
Kenya Airways	0.60	1.88	31.91	7.25	0.50	0.75	66.67	6.50
MG	2.36	7.20	32.78	40.00	2.50	7.55	33.11	101.00
PS Serena	1.10	2.15	51.16	16.00	1.10	2.74	40.15	20.00
xpress Kenya	0.00	-6.55	0.00	7.00	0.00	-11.67	0.00	7.90
inance & Investment								
arclays	14.25	16.00	89.06	85.00	12.00	9.63	124.61	131.00
IC Bank	1.60	3.04	52.63	13.10	2.00	2.78	71.94	26.00
tanChart	8.25	9.04	91.26	52.00	8.25	8.92	92.49	93.00
.C.B.	0.00	2.55	0.00	10.15	0.00	-13.63	0.00	47.25
H.F.C.K.	0.00	1.54	0.00	3.70	0.60	0.49	122.45	10.95
FC Bank	0.67	1.18	56.78	9.00	0.67	1.45	46.21	19.00
Diamond Trust.	0.40	0.51	78.43	9.00	0.60	0.95	63.16	21.50
ubilee	1.75	2.82	62.06	15.70	1.75	4.57	38.29	30.00
Pan African Ins	0.00	-3.17	0.00	7.30	0.00	-3.17	0.00	16.00
.C.D.C	2.00	4.56	43.86	19.00	2.20	4.83	45.55	51.00
N.B.K.	0.00	1.49	0.00	2.60	0.00	0.99	0.00	14.90
City Trust	2.00	2.23	89.69	18.25	2.00	1.28	156.25	20.25
Industrial & Allied								
E.A Cables	1.10	0.88	125.00	7.15	0.50	-0.29	-172.41	12.00
Unga	0.00	-0.71	0.00	4.10	0.00	-0.61	0.00	12.05
Total Kenya	0.00	-2.23	0.00	10.35	1.70	2.41	70.54	35.75
Crown Berger	0.50	1.08	46.30	5.00	1.50	2.57	58.37	18.45
B. A. T.	10.50	6.04	173.84	47.50	7.00	8.23	85.05	98.00
E.A.B.L.	9.00	14.88	60.48	82.50	11.50	13.09	87.85	226.00
Bamburi	0.75	2.01	37.31	17.25	1.00	3.38	29.59	80.00
Firestone	1.05	1.05	100.00	8.15	0.50	0.83	60.24	12.95
Kenya Oil	7.50	37.21	20.16	73.00	10.50	43.80	23.97	200.00
Athi-River Min	0.00	0.41	0.00	3.70	0.50	0.62	80.65	16.90
B.O.C.	3.55	3.84	92.45	27.00	4.35	5.40	80.56	75.50
Dunlop	0.40	0.32	125.00	5.00	0.40	0.32	125.00	5.90
Kenya Power	0.00	-19.06	0.00	8.65	0.00	-14.88	0.00	32.00
E.A.Portland	1.00	3.51	28.49	12.50	1.50	1.37	109.49	46.25
K. Orchards	0.00	-19.20	0.00	5.30	0.00	-19.20	0.00	5.30
Carbacid	1.65	3.76	43.88	36.00	23.10	4.93	468.56	62.50

APPENDIX II

SUMMARY OF DPOR (%) AND SHARE PRICE(SH) DATA

	1998		1999		2000		2001		2002		2003	
COMPANY	DPOR (Xi)	SHARE PRICE (Yi)	DPOR (Xi)	SHARE PRICE (Yi)	DPOR (Xi)	SHARE PRICE (Yi)	DPOR (Xi)	SHARE PRICE (Yi)	DPOR (Xi)	SHARE PRICE (Yi)	DPOR (Xi)	SHARE PRICE (Yi)
Brooke Bond	0.00	133.00	85.11	148.00	90.91	74.00	90.91	101.00	43.76	56.50	88.65	77.00
Kakuzi	26.65	143.00	26.65	121.00	26.65	66.50	136.99	40.00	0.00	28.00	0.00	19.85
Rea Vipingo	40.40	7.00	40.40	6.00	0.00	3.85	0.00	2.70	0.00	3.00	60.98	5.00
Sasini	76.34	75.00	93.75	54.00	156.25	35.00	10.18	26.75	34.36	15.00	-61.73	21.50
G. Williamson	22.71	140.00	24.12	143.00	83.89	75.00	48.20	104.00	-12.72	41.25	70.89	84.00
Kapchorua Tea	39.35	81.00	39.35	150.00	197.37	150.00	197.37	140.00	-12.25	137.00	73.53	105.00
Eaagads	51.15	37.00	62.66	42.00	109.65	25.00	-93.98	20.50	0.00	19.00	104.17	17.75
Uchumi	77.16	46.00	153.85	48.00	166.67	42.75	93.81	45.75	1066.67	16.60	33.56	32.00
CMC Holdings	16.13	35.25	9.29	28.25	11.35	16.80	14.85	8.80	20.49	11.80	15.90	44.75
Standard News	25.00	35.50	-47.62	13.40	0.00	6.10	1.02	6.00	0.00	4.00	0.00	19.35
A.Baumann	-23.81	15.50	-62.19	13.40	37.88	13.80	0.00	10.00	149.25	8.60	0.00	5.50
Marshalls	52.98	42.50	176.99	14.00	0.00	19.30	0.00	18.30	0.00	18.30	0.00	6.45
Kenya Airways	40.76	7.05	35.09	8.20	0.00	8.00	19.75	8.70	31.91	7.25	66.67	6.50
NMG	17.21	116.00	18.01	129.00	19.10	75.00	28.95	47.50	32.78	40.00	33.11	101.00
TPS Serena	93.46	13.00	58.14	13.60	48.78	15.95	46.51	16.50	51.16	16.00	40.15	20.00
Express Kenya	83.02	30.00	98.27	25.00	98.27	19.05	0.00	12.00	0.00	7.00	0.00	7.90
Barclays	57.20	102.00	56.58	112.00	68.49	86.00	91.52	81.50	89.06	85.00	124.61	131.00
NIC Bank	28.09	41.00	37.15	30.00	49.32	21.00	47.49	15.25	52.63	13.10	71.94	26.00
StanChart	43.67	41.75	62.28	50.00	70.21	48.00	125.00	56.50	91.26	52.00	92.49	93.00
K.C.B.	34.45	70.00	73.62	46.00	0.00	28.00	0.00	19.10	0.00	10.15	0.00	47.25
H.F.C.K.	46.15	16.10	60.48	12.50	81.97	7.05	111.11	5.00	0.00	3.70	122.45	10.95
CFC Bank	25.97	17.05	28.03	15.00	35.45	9.80	41.61	8.45	56.78	9.00	46.21	19.00
Diamond Trust.	-14.25	22.00	30.77	23.50	41.03	20.00	29.13	11.55	78.43	9.00	63.16	21.50
Jubilee	39.06	30.50	45.10	28.50	45.10	22.00	59.12	15.60	62.06	15.70	38.29	30.00
Pan African Ins	25.22	30.00	30.22	36.00	30.22	20.00	-119.86	12.50	0.00	7.30	0.00	16.00
I.C.D.C	41.19	39.25	56.60	48.00	56.60	49.50	33.22	47.00	43.86	19.00	45.55	51.00
N.B.K.	64.43	11.55	-3.54	6.00	0.00	3.60	0.00	3.00	0.00	2.60	0.00	14.90
City Trust	25.73	30.75	37.74	22.50	100.00	20.00	89.29	16.00	89.69	18.25	156.25	20.25
E.A Cables	63.69	22.25	63.69	19.90	416.67	8.00	73.33	10.00	125.00	7.15	-172.41	12.00
Unga	48.05	56.00	-10.07	32.25	0.00	15.40	0.00	7.75	0.00	4.10	0.00	12.05
Total Kenya	112.07	42.00	52.36	47.50	34.52	51.00	34.52	27.00	0.00	10.35	70.54	35.75
B. A. T.	71.26	45.00	46.99	86.00	65.95	57.00	68.59	54.00	173.84	47.50	85.05	98.00
E.A.B.L.	45.15	53.00	264.32	78.00	52.22	65.50	368.44	80.00	60.48	82.50	87.85	226.00
Bamburi	52.09	35.00	47.77	26.50	57.80	29.25	57.80	29.00	37.31	17.25	29.59	80.00
Firestone	69.25	17.00	68.18	16.50	68.18	12.95	82.64	7.00	100.00	8.15	60.24	12.95
Kenya Oil	21.18	57.00	1.06	60.50	25.58	82.00	34.71	73.50	20.16	73.00	23.97	200.00
Athi-River Min	52.63	9.00	0.00	5.50	0.00	4.55	0.00	4.50	0.00	3.70	80.65	16.90
B.O.C.	34.15	57.50	44.87	71.50	44.87	47.25	92.69	31.00	92.45	27.00	80.56	75.50
Dunlop	46.99	154.00	45.98	15.00	66.67	7.50	52.63	5.00	125.00	5.00	125.00	5.90
Kenya Power	27.19	190.00	28.86	113.00	12.14	51.50	-39.31	29.00	0.00	8.65	0.00	32.00
E.A.Portland	39.29	23.50	7.91	14.00	7.91	12.40	10.15	11.00	28.49	12.50	109.49	46.25
K. Orchards	17.99	19.40	17.99	5.00	17.99	5.00	17.99	5.00	0.00	5.30	0.00	5.30
Carbacid	28.75	72.00	23.34	69.00	34.78	50.00	23.91	46.00	43.88	36.00	468.56	62.50

APPENDIX III

REGRESSION AND CORRELATION ANALYSIS RESULTS

SUMMARY OUTPUT FOR THE ENTIRE MARKET

Regression Statistics

Multiple R	0.69890346
R Square	0.48846605
Adjusted R Square	0.36058256
Standard Error	8.96572078
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	307.036729	307.036729	3.819618	0.122340
Residual	4	321.536597	80.384149		
Total	5	628.573325			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	86.1092328	24.29404	3.54446	0.02392	18.65801	153.56045
DPOR (Xi)	-0.90119362	0.46111	-1.95438	0.12234	-2.18145	0.37907

CORRELATION ANALYSIS FOR THE ENTIRE MARKET

	DPOR (Xi)	*SHARE PRICE (Yi)*
DPOR (Xi)	1	
SHARE PRICE (Yi)	-0.698903462	1

SECTORAL OUTPUT

SUMMARY OUTPUT FOR AGRICULTURAL SECTOR

Regression Statistics	
ultiple R	0.1942734
Square	0.0377422
djusted R Square	-0.2028223
andard Error	23.2430036
bservations	6

NOVA

	df	*SS*	*MS*	*F*	*Significance F*
egression	1	84.7578	84.7578	0.1569	0.7123
esidual	4	2160.9489	540.2372		
otal	5	2245.7067			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
tercept	58.9042	20.3867	2.8894	0.0446	2.3016	115.5067
POR	0.1448	0.3656	0.3961	0.7123	-0.8703	1.1600

CORRELATION ANALYSIS FOR AGRICULTURAL SECTOR

	DPOR	Share price
DPOR	1	
Share price	0.194273406	1

SUMMARY OUTPUT FOR COMMERCIAL AND SERVICE SECTOR

Regression Statistics	
Multiple R	0.26382915
R Square	0.06960582
Adjusted R Square	-0.1629927
Standard Error	9.25246875
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	25.61850713	25.618507	0.299253035	0.613438297
Residual	4	342.432712	85.608178		
Total	5	368.0512191			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	18.8216699	13.42578607	1.4019045	0.233574137	-18.45436535	56.09770507
DPOR	0.19121637	0.34954717	0.5470403	0.613438297	-0.779284168	1.161716911

CORRELATION ANALYSIS FOR COMMERCIAL AND SERVICE SECTOR

	DPOR	*Share Price*
DPOR	1	
Share Price	0.26382915	1

SUMMARY OUTPUT FOR FINANCE AND INVESTMENT SECTOR

Regression Statistics	
Multiple R	0.19850607
R Square	0.03940466
Adjusted R Square	-0.20074418
Standard Error	8.72475497
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	12.49032025	12.49032	0.16408433	0.706151928
Residual	4	304.4853973	76.121349		
Total	5	316.9757176			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	23.3591798	19.26354828	1.2126104	0.29199705	-30.1251154	76.84347486
DPOR	0.16517794	0.407773038	0.4050732	0.70615193	-0.96698386	1.297339745

CORRELATION ANALYSIS FOR FINANCE AND INVESTMENT SECTOR

	DPOR	*Share price*
DPOR	1	
Share price	0.198506069	1

SUMMARY OUTPUT FOR INDUSTRIAL AND ALLIED SECTOR

Regression Statistics	
Multiple R	0.17047026
R Square	0.02906011
Adjusted R Square	-0.2136749
Standard Error	17.2214905
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	35.5063763	35.50638	0.119719496	0.74677156
Residual	4	1186.318935	296.5797		
Total	5	1221.825311			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	23.4502792	51.55904754	0.454824	0.672826893	-119.70088	166.601441
DPOR	0.31359556	0.906332304	0.346005	0.746771556	-2.2027915	2.82998266

CORRELATION ANALYSIS FOR INDUSTRIAL AND ALLIED SECTOR

	DPOR	*Share price*
DPOR	1	
Share price	0.170470257	1

SUMMARY OUTPUT FOR LARGE COMPANIES

Regression Statistics	
Multiple R	0.16750942
R Square	0.0280594
Adjusted R Square	-0.2149257
Standard Error	14.705107
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	24.97095158	24.97095	0.11547786	0.751085984
Residual	4	864.9606828	216.2402		
Total	5	889.9316344			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	67.3433253	57.8782419	1.163534	0.30928791	-93.35276895	228.03942
DPOR	-0.4273309	1.257520207	-0.33982	0.75108598	-3.918773988	3.06411212

SUMMARY OUTPUT FOR SMALL COMPANIES

Regression Statistics	
Multiple R	0.14874
R Square	0.02212
Adjusted R Square	-0.2223
Standard Error	7.27794
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	4.79373354	4.79373	0.09050177	0.778529068
Residual	4	211.8735815	52.9684		
Total	5	216.6673151			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	19.0111	8.784936953	2.16406	0.096449272	-5.37980384	43.402088
DPOR	0.0463	0.15389617	0.30084	0.778529068	-0.38098778	0.4735825

CORRELATION ANALYSIS FOR LARGE COMPANIES

	DPOR	*Share price*
DPOR	1	
Share price	-0.1675094	1

CORRELATION ANALYSIS FOR SMALL COMPANIES

	DPOR	*Share price*
DPOR	1	
Share price	0.14874427	1

SUMMARY OUTPUT FOR NON-GOVERNMENT INFLUENCED COMPANIES

Regression Statistics	
Multiple R	0.2159449
R Square	0.0466322
Adjusted R Square	-0.19170975
Standard Error	12.0079922
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	28.21150312	28.2	0.1957	0.68111764
Residual	4	576.7675051	144		
Total	5	604.9790083			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	56.6534416	31.70084702	1.79	0.1484	-31.362402	144.6692855
DPOR	-0.26767115	0.605144169	-0.44	0.6811	-1.9478242	1.412481893

SUMMARY OUTPUT FOR GOVERNMENT INFLUENCED COMPANIES

Regression Statistics	
Multiple R	0.52803
R Square	0.278815
Adjusted R Square	0.098519
Standard Error	11.82322
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	216.1729389	216.173	1.546428	0.281567
Residual	4	559.1539945	139.788		
Total	5	775.3269333			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	37.5149	9.599185211	3.90813	0.017421	10.86323	64.166561
DPOR	-0.19407	0.15605673	-1.24355	0.281567	-0.627349	0.2392187

CORRELATION ANALYSIS FOR NON-GOVERNMENT INFLUENCED COMPANIES

	DPOR	*Share price*
DPOR	1	
Share price	-0.215944904	1

CORRELATION ANALYSIS FOR GOVERNMENT INFLUENCED COMPANIES

	DPOR	*Share price*
DPOR	1	
Share price	-0.52803	1

SUMMARY OUTPUT FOR FOREIGN BASED COMPANIES

Regression Statistics	
Multiple R	0.14933351
R Square	0.0223005
Adjusted R Square	-0.2221244
Standard Error	13.7852048
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	17.3378628	17.3378628	0.0912366	0.777664848
Residual	4	760.127489	190.031872		
Total	5	777.465352			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	59.4119292	40.941688	1.45113531	0.2203669	-54.2606554	173.08451
DPOR	-0.2312263	0.76551317	-0.30205398	0.77766485	-2.35663599	1.8941834

SUMMARY OUTPUT FOR LOCAL BASED COMPANIES

Regression Statistics	
Multiple R	0.537196
R Square	0.28858
Adjusted R Square	0.110725
Standard Error	10.55537
Observations	6

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	180.77841	180.778	1.62255692	0.27171753
Residual	4	445.6630353	111.416		
Total	5	626.4414453			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	53.83108	17.28655312	3.11404	0.0357318	5.83581714	101.82635
DPOR	-0.416211	0.326748543	-1.2738	0.27171753	-1.3234123	0.4909902

CORRELATION ANALYSIS FOR FOREIGN BASED COMPANIES

	DPOR	Share price
DPOR	1	
Share price	-0.1493335	1

CORRELATION ANALYSIS FOR LOCAL BASED COMPANIES

	DPOR	Share price
DPOR	1	
Share price	-0.537196	1