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Dividend Announcements and Market Value of Shares in the Agricultural Companies Listed at the Nairobi Securities Exchange

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Abstract: This study investigated the information value of dividend payout announcements and the market value of shares in the agricultural companies listed at Nairobi stock Exchange (NSE). It used a modified market model to investigate whether Nairobi Stock Market reacts efficiently to dividend announcements in terms of price adjustment to share prices in the agricultural sector. It attempted to determine whether an announcement of dividends has any impact on the share price of the agricultural companies announcing the dividends. The study also examined potential explanation for the wealth effects surrounding dividend change announcements, value of the firms and performance in terms of its present and future prosperity. This study analyses the announcement effect of cash dividends on share prices in Kenyan capital markets. It investigated whether cash dividend announcements result in an abnormal return around the announcement day in Nairobi Stock Exchange. The abnormal returns were calculated using the market adjusted model, between t-15 and t+15 days, event windows were used to test this effect. The results indicate that the impact of dividend on dividend announcement date and few days after were positive. These results confirm the theoretical background regarding the impact of dividend on the stock prices. It shows that dividend distribution is relevant for future price determination.
Keywords: Nairobi stock Exchange (NSE), agricultural companies

INTRODUCTION

Background of the Study

The dividend decision of the firm is of crucial importance for the finance manager since it determines the amount to be distributed among shareholders and the amount of profit to be retained in the business. Managers of firms are therefore usually faced with a crucial decision in financial management called dividend policy. Dividends are commonly defined as the distribution of earnings (past or present) in real assets among the shareholders of the firm in proportion to their ownership. The term dividend policy therefore refers to "the practice that management follows in making dividend payout decisions or, in other words, the size and pattern of distributions over time to shareholders" Lease *et al,* [1]. The correlation between dividend payment and the share price changes has been researched for very many years. However, it still remains a puzzle on whether dividend announcements affect the share prices of firms. The information on dividend announcements and changes on share prices plays a key role in regulation and supervision of the capital markets. The act of declaring dividend in itself is seen to contain a communication from the management about the companies past performance and the anticipated future performance [2]. This information is very crucial to markets and most capital markets and legal systems bring strict disclosure provisions and sanctions into force to make sure that information is available for everyone at the same time. In almost every capital market, it is forbidden to trade with insider information and such information significantly affects the stock price when it is announced. The issue surrounding policy makers is whether dividend announcements have information content. This study sought to investigate this concept to determine the extent to which dividend announcements has information content.

Dividend Theories

There are conflicting opinions as far as the impact of dividend decision on the value of the firm. According to one school of thought, dividends are relevant to the valuation of the firm. Others opine that dividends do not affect the value of the firm and market price per share of the company. **Dividend Relevant Theories** argue that if the choice of the dividend policy affects the value of a firm, it is considered as relevant. In that case a change in the dividend payout ratio will be followed by a change in the market value of the firm. If the dividend is relevant, there must be an optimum payout ratio. Optimum payout ratio is that ratio which gives highest market value per share.

Dividend Relevant Theories such as Walter's Model developed by Prof. James E. Walter argues that the choice of dividend payout ratio almost always affects the value of the firm. Prof. J. E. Walter

has very scholarly studied the significance of the relationship between internal rate of return (R) and cost of capital (K) in determining optimum dividend policy which maximizes the wealth of shareholders. Walter's model is based on the assumption that a firm finances its entire investments by means of retained earnings only, internal rate of return (R) and cost of capital (K) of the firm remains constant, The firms' earnings are either distributed as dividends or reinvested internally, the earnings and dividends of the firm will never change and the firm has a very long life. Another theory, which contends that dividends are relevant, is the Gordon's model. This model which opines that dividend policy of a firm affects its value is based on the following assumptions: The firm is an all equity firm (no debt), there is no outside financing and all investments are financed exclusively by retained earnings, internal rate of return (R) of the firm remains constant, cost of capital (K) of the firm also remains same regardless of the change in the risk complexion of the firm, the firm derives its earnings in perpetuity, the retention ratio once decided upon is constant. Thus the growth rate is also constant.

The Bird-in-hand theory was advanced by Myron Gordon and John Litner in 1963 who argued that a bird in hand is worth two in the bush and thus when a shareholder receives cash dividend he is better off than one receiving capital gain. Investors therefore value dividend more than capital gains and a firm that pays dividend will have a higher market value. They concluded that dividend decisions are relevant and a firm that pays higher dividend has higher value. The **Tax Differential Theory** was advanced by Litzenberger and Ramaswamy in [3] who noted that the tax rate on dividend is higher than the rate on capital gain (In Kenya Capital gain tax has been suspended). A firm that pays dividend will therefore have a lower value since shareholders will pay taxes on this dividend. Dividend decisions are relevant and a firm that pays no dividend has the highest value. **Signaling theory was developed by** Stephen Ross in [4] argued that in an inefficient market, management can use dividend payment to signal important information to the market which is only known to them. If management increases dividend, it signals expected high profit and therefore share prices will increase. Therefore dividend decisions are relevant and a firm that pays higher dividend will have a higher value (especially in an inefficient market).

The Clientele effect theory was proposed by Richardson Pettit in [5] who stated that different groups of shareholders have different preference for dividend. For example the low income earners will prefer higher dividend to meet their consumption needs while the high income earners will prefer less dividend so as to avoid the payment of taxes. Therefore when a firm sets a certain dividend policy there will be shifting of investors to it and out of it until equilibrium position is reached.

Dividend Irrelevance Theory was advanced by Modigliani-Miller Model. According to MM, the dividend policy of a firm is irrelevant, as it does not affect the wealth of shareholders. The model which is based on certain assumptions sidelined the importance of the dividend policy and its effect thereof on the share price of the firm. According to the theory the value of a firm depends solely on its earnings power resulting from the investment policy and not influenced by the manner in which its earnings are split between dividends and retained earnings. If the company retains the earnings instead of giving it out as dividends, the shareholders enjoy capital appreciation, which is equal to the earnings, retained. Hence, the division of earnings between dividends and retained. The dynamic discussion about the dividend changes information content revolves around three theories that support informational value of dividend announcements. These are; signaling Models, Efficient Market Theorem and the free cash flow hypothesis. Those central theories of current finance discussion are linked with the dividend puzzle that has been present in the literature since 1956. Based on these, management of the companies utilize dividend changes to provide direct or indirect signals to the capital markets about either past, current or future earnings. This study investigated the information value of dividend payout announcements among agricultural companies listed in Nairobi stock Exchange (NSE). It determined whether Nairobi Stock Market reacts efficiently to dividend announcements in terms of price adjustment to share prices. It attempts to determine whether an announcement of dividends has any impact on the value of shares for the companies announcing the dividends. The study also examines potential explanation for the wealth effects surrounding dividend change announcements, value of the firms and performance in terms of its present and future prosperity.

Dividend Announcements

Some studies generally accept that the value of the firm is affected by announcement of changes in dividend payouts. There is an ongoing debate on why changes in dividend affect firm value. The primary explanation has been the cash flow signaling hypothesis as developed in theoretical models by Battachrya [6], John and Williams [7], Kalay [8] and Miller and Rock [9]. These authors collectively agree that since managers possess more information about the firm's cash flows than do individuals outside the firm, the managers have incentives to unambiguously "signal" that information to investors. These models therefore

assert that, dividend changes convey managers' information about future and/or current cash flows. The managers of the firm have private information about the future prospects of the firm and this leads to information asymmetry between managers and shareholders and may cause agency conflicts between the management and shareholders. Therefore, dividend announcement provide the shareholders and the general public with very vital information about the future prospects of the firm and the tax effects thus reducing the level of information asymmetry. Several Questions have been raised on why companies pay dividends, despite the fact that dividends are taxed at higher rates than capital gains. Tax-based signaling models provide an answer to this question. The higher tax on dividends relative to capital gains make dividends informative about the company's future prospect and cash flow [7]. These models argue that dividends would not be informative if not for the higher taxes on dividends relative to capital gains [10] Empirical studies from developed economies like United States continue to show mixed evidences. Several studies have shown positive relationship with the dividend payment Gordon [11], Ogden [12], Stevens and Jose [13], Kato and Loewenstein [14], Ariff and Finn [15], and Lee [16], However, empirical studies conducted by Loughlin [17] Easton and Sinclair [18] show negative correlation between dividend announcement and stock returns. They explain that this is expected due to tax effect. The proponents of positive relationship tended to relate the positive relationship between the stock returns and dividend announcement with the information effect of dividend. The dividend information hypothesis postulates that cash dividend carries information regarding the future cash flows of firm that is to be reflected in the market price of stock after announcement of dividend, particularly when dividend increases Bhattacharya [19] Bar-Yosef and Huffman [20] and Yoon and Starks [21].The theoretical literature on dividend effects has been well developed. Some researchers largely accept that dividend *per-se* has no impact on the shareholders' wealth in an ideal economy. However, in a real world, dividend announcement is important to the shareholders because of its tax effect and information content.

The Nairobi Securities Exchange

The Nairobi Securities Exchange was established in 1954 and started operating as an overseas stock exchange while Kenya was still under British colony with the permission of the Lodon Stock Exchange. It deals with exchange of securities issued by publicly quoted companies and the government of Kenya. The NSE is regulated by the Capital Markets Authority of Kenya which is under the government. Currently the Nairobi Securities Exchange comprises approximately **55** listed companies with a daily trading volume of over **USD 5 million** and a total market capitalization of approximately USD 15 billion NSE handbook (2006). The listed companies are categorized into ten segments; Agriculture, Automobiles and Accessories, Banking, Commercial and Services, Construction and Allied, Energy and Petroleum, Insurance, Investment, Manufacturing and Allied, Telecommunications and Technology and Fixed Income Market Securities Segment (FISMS).

Agricultural Companies Listed at the NSE

Agriculture growth and development is critical to Kenya's overall economic and social development. The sector directly contributes about 26 per cent of Gross Domestic Product(GDP) and a further 27 per cent through linkages with manufacturing, distribution and services related sectors. About 80 per cent of the population lives in the rural areas and depends mainly on agriculture and fisheries for livelihood. In addition, 87 per cent of all poor households live in rural economic areas where main activities are in Agriculture. About 50 per cent of Kenyans are food insecure while significant potential for increased production remains largely unexploited (Economic Recovery Strategy for wealth and Employment Creation 2003-2007). In Economic Recovery Strategy for wealth and Employment Creation 2003-2007 (ERS), the Government has identified agriculture as the main productive sub-sector through which the country will generate wealth and create employment as well as achieve food security and reduce poverty. The NSE has been associated with agriculture for many years, the bourse enables the business community to access long term capital for investment through shares, bonds and debentures. All the companies listed have issued shares as a way of raising long-term investible capital. Apart from facilitating the primary issue of securities, the bourseserves another function. It facilitates secondary trading and transfer of ownership of securities. Agricultural companies therefore give the shareholders an avenue through which they can invest since agriculture is the mainstay of the Kenyan economy hence there are good prospects for future growth in the agricultural sector. Very many investors do not usually invest in agricultural stocks yet most of them usually increase their share price values very fast, therefore the findings of this study will inform the Kenyan investors the importance of investing in agricultural stocks.

Research Problem

Even though, there is rich theoretical and empirical research on the relevance of and relationship between share prices and dividends, it is questionable. Paying large large dividends reduces risk and thus influence stock price and is risky to future earnings [22]. According to Modigliani and Miller [9], in a world of no taxes and transaction costs, dividends are

irrelevant to investors. However, empirical research has revealed findings that support the relevance of the dividends proposition. Cash dividend payment is considered as a reward to the shareholders out of something they already own in the company, so this reward may be offset through fall of share price [23]. Later on, this idea of relevance of dividend was advanced by Walter [24] & Gordon [11] and it has now been formalized into a theory of dividend relevance. It postulates that current stock price would reflect the present value of all expected dividend payments in the future. The ultimate objective of corporate managers is to increase the shareholders' value. In this perspective, they make various types of investment and financing decisions. In the process of making investment decisions, they have to find the investment projects having positive net present value, while in the process of making financing decisions, they have to decide about the mix of firms capital structure which will minimize the overall cost of firms capital. Apart from making these decisions, managers have to decide whether they should distribute the earnings to the shareholders in the form of dividend or not because such distribution will result in increasing the cash flow of the stockholders but simultaneously, will limit the financial resources of the firm. Studies done in Kenya by Iminza [25] found out that dividend payment has a significant impact on share prices. A more recent study by Kiio [26] supports Iminza's observation and concluded that the NSE is not efficient at the semi-strong form since share prices do react to cash dividends announcement. Similar sentiments were also shared by Olweny [27] who found that the NSE is not semi-strong formefficient as some investors can earn abnormal returns by having unequal access to public information. Test for under-reaction to stock dividend announcements [28], Turn of the month and January effects on stock dividend announcements [28], Stock market behavior around national elections [29], Turn of the month and January effects on stock prices [30], An empirical study on the weekend effect on the stock [31], the dividend announcements by companies quoted at the NSE [32], this study therefore contributes towards the research gap by imploring how dividend announcements in the agricultural sector gives vital sector information to both the investors and managers about share prices, dividend policies and future prospects of the agricultural firms. Information asymmetry problem; Transparency between the shareholders and most managers is low and corporate disclosure requirements for most firms do not exist. Investors therefore have few other sources of information on these Kenyan companies, and this makes cash dividend announcements an important source of information in pricing shares, on the other hand the managers of the firm have private information about the future prospects of the firm and this leads to information asymmetry between managers and shareholders and may cause agency conflicts between the management and shareholders. Therefore, this study on informational value of dividend announcement will provide the shareholders and the general public very vital information thatcan be used to evaluate management expectations and confidence as to the future performance and prospects of agricultural sector thus reducing the level of information asymmetry and the agency conflict between the shareholders and firm managers and will also shed light on the agricultural stocks which are usually assumed by many investors yet they offer a good prospect for investment.

The study is therefore trying to establish whether announcement of cash dividends by Agricultural companies listed at Nairobi Stock Exchange lead to share price increase or decrease?

Objective of the Study

This study intends:

- To investigate share price reactions to announcements of cash dividends by agricultural companies listed at the Nairobi Securities Exchange.

Value of the Study

This study tries to investigate share price reactions to announcements of cash dividends by the agricultural companies listed at the Nairobi Securities Exchange. Previous empirical studies have focused on developed economies and some have deduced that dividends have no effect on share prices, this study will therefore provide very vital information that fits the Kenyan situation, The findings of this study will provide vital information to the managers of firms in Kenya and will help them in making dividend and disclosure policies regarding the information to be released to the stock market, this information will also be important to the investors, the Capital Market Regulators and shareholders on the correlation between announcement of dividends and share price reactions and will send very strong signals about the future prospects of several firms. The managers of the firm usually have private information about the future prospects of the firm and this leads to information asymmetry between managers and shareholders and may cause agency conflicts between the management and shareholders, the capital market regulation tries to regulate this, Despite the regulation, the information asymmetry among Kenyan companies trading at the Nairobi Stock Market still persist. Therefore, dividend announcements provide the shareholders and the general public very vital information about the future prospect of the firm and the tax effects thus reducing the level of information asymmetry. This study will also contribute to the body of knowledge by giving the

empirical evidence on the relevance and impact of dividend announcements on share prices through studying firms in Kenya which is a developing country, it therefore presents the scholars with an opportunity to compare and contrast the results of this study with other studies that have been done in developed economies.The study will also enable managers to keep optimal portfolios by deeply understanding the stock returns hence this will ensure that the portfolios held aim at achieving maximization of shareholders wealth. Finance managers would be able to examine how the various market frictions such as asymmetric information, agency costs, taxes, and transaction costs affect their firms, as well as their current shareholders, to arrive at reasonable dividend policies.

LITERATURE REVIEW

Numerous studies have been done especially in the developed countries to explain the informational value of dividend announcement on share prices with conflicting results. It is however widely believed that changes in dividends affect value of a firm.

Theories Underpinning the Study

Many studies in the finance literature have tried to explain the positive or the negative relation between a dividend increase, decrease and excess returns on shares.

In this study three theories that support informational value of dividend announcements have been used, these are:

Information-Signaling Hypothesis

The information content of dividends started with Lintner [33].He explained that, managers believe that the dividend changes have a positive correlation with permanent earnings changes rather than temporary earnings changes and managers have more information about company's future earnings capacity and future cash flows. The primary factor that managers take into account to determine their dividend policy is the information about an increase in firm's future cash flows by announcing an increase in the current dividend. In other words, the dividend changes convey important and valuable information about permanent change in the firm's earnings in future; therefore it will be reflected in the share prices after the announcement of the information. While Miller and Modigliani [34] found that the dividend has no effect on value and capital structure of a firm under perfect capital market conditions and non-existence of taxes. They pointed out that dividends may have information content if managers have private information about firm's future earnings and use it to set the current dividend policy. The information content of a dividend was formalized by Bhattacharya [6], John and Williams [7] and Millier and Rock [9] as a "Signaling Theory". They argued that changes in dividends contain a signal about changes in future earnings' of the firm. The management uses the dividend to give the signal about future earnings of the firm to the shareholders. Bhattacharya [19] indicated that dividends act as a signal that reduces information asymmetries between management and shareholders about the firm's current and future earnings. The announcement of the dividends increases signals to shareholders that future cash flows or future earnings will be high enough to meet the dividends increases. The positive impact of dividend payment announcement on abnormal returns of stocks was also observed by Lea [35], Foster & Vicky [36], Gordon [11]. Lonie, *et al*. [37] found the sensitivity of investors to the increase or decrease of dividend and revealed that on the average, abnormal returns of companies even one day before the announcement of dividend were significantly different from zero even for those companies in which there was no change in dividend. Walter [38] and Gordon [11] however showed that valuation of stock depends on the expected future dividends. If company pays out all the earnings to shareholders, funds for future investment will decrease and dividend may not increase in the future.The studies about the information-signaling theory are tested by two ways. Firstly, some studies examined the relation between dividends and future earnings of thefirm. Secondly, other studies tested whether the announcement of dividends result in abnormal return on share. DeAngelo and DeAngelo [39] found supportive empirical evidence on information-signalling theory such that the dividend reduction heavily is related with earning problems. The studies of Fama *et al*. [40], Pettit [5], Woolridge [41], Ofer and Siegel [42], Venkatesh [43], Lang and Litzenberger [3] and Jensen and Johnson [44] document that the dividend changes convey some information to the market about firm's future earnings or profitability. On the other hand, Healy and Palepu [45] and DeAngelo *et al*. [39] found a negative relationship. Watts [46], one of the earliest empirical studies on information content of dividends, tried to find out a relation between the unexpected dividend changes and future earnings by forecasting future earnings using current dividends rather than earnings. His study found a small relationship between unexpected dividends changes and future earnings. Evidence from empirical examination of signaling models has not been conclusive. Watts [46] and Gonedes [47] find weak evidence of earnings increases following dividend decreases. Penman [48], however, established that dividends convey no incremental information controlling for the effects of management earnings forecast.More recently, Benartzi, Michaely, and Thaler [49] found that earnings growth rates of dividend-increasing firms do not subsequently increase. Moreover, they find that firms that decrease dividends

experience significant increase in earnings growth rate in the following years. Grullon, Michaely and Swaminathan [50] find that firms that increase dividends experience significant decline in their systematic risk, profitability, capital expenditures and cash levels, and suggest that dividend increases may be an important element of a firm's long-term transition from growth to a more mature phase. The evidence from these two studies strongly contradicts the central implication of signaling models that dividend changes are positively related to subsequent increases in profitability.

Free Cash Flow Hypothesis

The free cash flow hypothesis was developed from agency theory of firm [51]. The agency theory arose due to the persistent conflict of interests between the managers and shareholders of firms, the managers of a firm do not always share important information about the firm with the shareholders thus leading to information asymmetry uncertainty. Jensen [52] introduced a free cash flow policy which states that the managers prefer more free cash under their discretion and due to the fear of bankruptcy, are reluctant to pay out the dividends to shareholders. Having more free cash under the control of management causes overinvestment problem, in which managers invest in projects which have negative net present value, the managers at the same time may use the free cash flow at their discretion by awarding themselves high salaries, expensive trips abroad or buying luxurious cars at the expense of paying the shareholders dividends. Therefore while dividends help to reduce the agency cost Jensen [52] clarifies that the dividends are used as a monitoring and disciplining mechanism over the management rather than direct intervention of shareholder to management affairs. Therefore, increase in the dividends has positive information in which the agency cost will be reduced and investing projects with negative net present value will be less likely in the future. If the managers announce increase in dividends, the free cash flows under the management control will be less in future. Thus the announcement of dividend increase may signify better performance of the company in the future. Therefore dividends have information content and value since payment of dividends solve the agency problem and ensures that the free cash flow that is left after payment of the dividend is not misused by the managers but is invested in projects with positive net present value. Walter [54] and Gordon [11] showed that valuation of stock depends on the expected future dividends. If a company pays out all the earnings to shareholders, funds for future investment will decrease and dividend may not increase in the future. Therefore, theoretical literature suggested that dividends payout should not be desirable provided that companies can better invest their funds. Free cash flow hypothesis is supported by Rozeff [55] and Easterbrook [56] According to them increase in payment of dividends reduces the agency cost of firm. They further explained that high dividend paying firms more often requires external funding via market. Thus, these firms are more subject to monitoring by the market. The free cash flow hypothesis has found mixed supports from empirical studies. The studies of DeAngelo and DeAngelo [39] and La Porta *et al.* [57] found supportive evidence. Dennis *et al.* [58] could not document supportive evidence. Litzenberger [3] use the Tobin Q methods to test these hypothesis and they document that their study supports the free cash flow hypothesis more than the signalling hypothesis.

Clientele Effect Hypothesis

The last possible explanation for a relationship between the dividend changesand abnormal returns are related to the clientele effect. The dividend clientele effect hypothesis argues that some investors prefer earnings to be paid out as a dividend and other prefer earnings to be retained in the firm. Whilst, some firms try to meet theinterest of dividend preferred shareholders and other firms try to meet the interest of retained earning preferred shareholder. This preference differences can mainly emerge from different taxation of capital gain and dividend yield.In many countries the capital gain is taxed less than the dividend yield. It wasthe situation in US until 1986 and in UK until 1997, but it is no longer valid. In case of equal treatment of taxation, investors will be indifferent in the dividend yield and capital gain. Even the lower taxation of the capital gain, Black and Scholes [59] and Miller and Scholes [60] argue that there should not be a relation between a return and the dividend. Black [59] states that this is as a puzzle, while dividend has no effect on firm value, firms still pay dividends.The investors, who are in a position of tax advantage of capital gain, will preferearnings of firm to be retained rather than paid out. In that case, announcement of the dividends will be seen as negative information for these investors, because these investors will pay more tax in future, their response will be short position in that share to avoid tax and they will prefer non dividends paying shares. This tax preference is calculated as the Tax Clientele Effect hypothesis by Miller and Modigliani [34] and Black and Schloles [59]. According to the hypothesis some firms attract investors because the firm's dividend policy suits these investors' preferences. On the other hand, some investors prefer the dividend yield to the capital gaindue to their own interest such as personnel tax exemption or any other reason, and some firms try to meet the interest of these clienteles. Especially pension funds need stable income to pay pensions since the pension funds are mature and it is not easy to sell shares in each time. The studies of Eckbo and Verma [61] and Short et al [62] found a

significant and positive relationship between the dividend paid out and institutional investors. Therefore, decrease in dividends may be seen as an unwanted event by the institutional shareholders, whereas a dividend increase may be seen as a wanted event by the shareholder.

Contribution to Management Practice

Several studies have been done on the information content of dividend announcements on the price of common shares. For example, a number of studies have analyzed the share price reaction to the announcement of changes in regular paid dividends [63, 64]. Uddin [65] conducted a study to establish the effect of divided announcements on shareholders' value usingDhaka stock exchange (DSE) as a case study. This empirical study was based on 137 samples of dividend payingcompanies listed on the DSE. These are companies that announced dividends between October 2002 andSeptember 2002. He chose this period following immediately after the change of political power in Bangladesh toavoid high market vitality. Another body of theoretical explanations for the relation between volume and stock returns focuses on the role of irrational traders. Baker and Stein [66] posit that high trading volume is associated with more noise traders, who push up prices in the presence of short sale constraints. Hong and Yu [67] portend that the presumed association between high trading volume and the presence of noise traders prompts risk-averse rational investors to demand a risk premium to compensate greater "sentiment risk". A related theory focuses on irrational investors 'the attention-grabbing hypotheses of Barber and Odean [68] and Lee [16] which hypothesized that the individual investors are reluctant to sell short, and they have limited attention capabilities. Hirshleifer et al. [61] found out that individuals are net buyers around the earning announcements, regardless of whether the news is good or bad. Gervais et al. [69] also describes a similar story by explaining the predictive relation they find between high volumes and the subsequent high returns. Kandel & Pearson [70] also indicated that volume increases around earning announcements when there is bad news or no news. Some studies have also tested the effect of dividend on value of the firm based on after taxdividends valuation model of Brennan [71]. Black and Scholes [59] found no evidence of the dividend has effect on the value of a firm, whereas Litzenberber and Ramaswamy [3] found that dividend has an effect on the value of a firm. Other studies examined the dividend clientele effect on price. Bajaj and Vijh [72] argue that it is difficult to distinguish signalling and clientele hypotheses. According to them, the expected dividend yield has a significant effect on stock return. If firm pays high dividends previously, and an increase in dividends cause more significant positive effect on stock price than those of low dividends. Dennis *et al*.[58] also tested the dividend clientele and free cash flow hypotheses and found that the dividend changes have a significant effect on the price.The announcement effect of the dividend on price is mainly examined aroundthe announcement day. It is argued that the immediate effect of the dividendannouncement does not examine the long term performance and most of studies do notmention about long term price effect of a dividend change. Akhigbe and Madura [73] tested the long term effect of a dividend change. They found that the dividend initiationhas a positive effect on price in long term and the dividend omission has a negativeeffect on price in long term. They also document that a short term effect of the dividendinitiation is also an indicator of long term effect; on the other hand, there is no suchrelation in the dividend omission.

Empirical Researches focusing on NSE in Kenya

The number of studies focusing on dividend announcements at the NSE and other related areas continue to increase. Iminza [25] found out that dividend payment has a significant impact on share prices. A more recent study by Kiio [26] supports Iminza's observation and concluded that the NSE is not efficient at the semi-strong form since share prices do react to cash dividends announcement. Similar sentiments were also shared by Olweny [27] who found that the NSE is not semi-strong formefficient as some investors can earn abnormal returns by having unequal access to public information. Test for under-reaction to stock dividend announcements [28]. Turn of the month and January effects on stock dividend announcements [28]. Stock market behavior around national elections [74]. Turn of the month and January effects on stock prices [75]. An empirical study on the weekend effect on the stock [76], the dividend announcements by companies quoted at the NSE [77]. Onyango [78] also sought to investigate the response of stock prices to earnings earning announcements at the NSE by sampling 16 companies and analyzing the results through regression statistics. He found out that earning announcements contain relevant information to the investors which are fully impounded in stock prices prior to or almost instantaneously at the time of announcements. Murithi [79] conducted a study to establish whether interim dividends could be usedcin predicting the final earnings at the NSE and found out that there is no relationship between interim earnings and eventual year-end earnings. Another study was also done by Mbugua [80] on the impact of stock dividend announcement on share prices at the NSE. His findings concluded that dividend announcements does have an impact on stock returns.

METHODOLOGY

This chapter explains the type of the study,the methodology that will be used, how the data will be analyzed and reporting of the results.

Research Design

This will be an event study of agricultural companies listed in the Nairobi Securities Exchange between 2009 to 2012; the study seeks to establish the relationship between share prices and dividend announcements. Event studies have been widely used in Finance and Economics in measuring the informational value of dividends [81]. holds that using financial market data, an event study measures the impact of a specific event on the value of the firm. In financial economics literature, an event is defined as some change, development or announcement that mayproduce a relatively large change in the price of an asset listed on a stock exchange over some specified time period, [27].This study methodology will be used because the significance ofthe relationship between an event (dividend announcements) and changes in share prices can mainly be established using the event study. The first step in event study methodology involves defining the event that should be analyzed and reasonswhy such an event is chosen. Examples of events are: announcement of dividends, earnings, corporate take-over, changes of the business regulatory environment, share splits and share issuance.

Study Population

This is an event study and the population includes eight agricultural companies listed in the Nairobi Securities Exchange between 2009 to 2012, these are; Eaagads Limited, Kakuzi Limited, Kapchorwa Tea Company, The Limuru Tea Company, Rea Vipingo Plantations, Sasini, Williamsons Tea Kenya and Mumias Sugar Company Lmited. This period is considered as the as the stable years following the post-election violence in 2008 when there was no political chaos hence market volatility was minimum and relatively stable than during elections in 2007 and post-election violence in 2008.The period was also considered adequate for any dividend announcement effects on stock returns to be detected and analyzed.

Data Collection

Secondary data from NSE database and listed agricultural company libraries will be used. A 31-day window period starting from -15 day to +15 day relative to the dividend announcement day (0-day) will be the period of study.

Data Analysis

The market model will be used hence daily market-adjusted abnormal return (MAAR) and daily cumulative abnormal return (CAR) will be calculated. MAAR indicates the relative daily percentage price change in the dividend paying stocks compared to the change in average market price.

NSE all-share price index will be used as the proxy of average market price.
MAAR is calculated as follows:

Where,
$MAARit = Rit - Rmt$

Where,
MAARit is the market adjusted abnormal return for security *i* over time t
Rit is the time *t* return on security *i*, calculated as (Pit – Pit-1)/Pit-1.

Where, Pit is the market closing price of share *i* on day *t*. Pit-1 is

the market closing price of share *i* on day *t-1*.

Rmt is the time *t* return on the NSE all-share price index calculated as

(It –It-1)/It-1. Where, Iit is the market index on day *t*. It-1 is the market index on day *t-1*.

The market adjusted abnormal return (MAAR) shows the change in individual share value due to the dividend announcement. As the percentage change in market index (average market price) is deducted, the remainder gives us the unsystematic portion of the value change, which is specific to that particular share resulting from its dividend announcement. MAAR is calculated over a period starting to –15 days to +15 days relative to the dividend announcement day (0-day).The second measure used is cumulative abnormal returns (CAR), which measures the investors' total return over a period starting from well before the announcement of dividend to well after the dividend announcement day. A 31-day window period will be used staring from -15day to +15day relative to the dividend announcement day (0-day).
CAR is calculated as follows:

$$CARt = \sum_{t=i}^{t=j} = MAAR$$

Where, CARt is cumulative abnormal return, MAARt as defined above, j denotes the day -15 through day +15.

Finally, parametric test will be used to determine the statistical significance of market adjusted average abnormal return of dividend paying stocks over the window period (-15 day to +15 day relative to dividend announcement). The t-statistics will be calculated cross-sectionally by using the standard deviation of abnormal returns of the portfolio of dividend-paying stocks. Moreover, *t-test* suggested in Brown and Warner [82] is also applied to test the

statistical significance of the cumulative abnormal returns. Regression analysis will also be used to analyze the data. The statistical analysis will be carried out using Ms-Excel and SPSS software programmes so as to have a complete analysis of the share prices.The abnormal returns will be calculated. The t-15 and t+15 days, event windows are used to test this effect. In the regression, a dividend per share is regressed on the abnormal returns in the event windows from t-15 and t+15 days.The date of the announcement will be called day 0 and will be the event day. The period under observation and investigation include some days before the announcement and a few days after. The period before the announcement is important because there could be some information released privately or publicly and this could affect the value of the share price. On the other hand, the days after the announcements are incorporated to help capture the announcement effects on the share prices. Therefore the event window period of 31 days permits examination of any reaction to leaked information and impacts of the share prices on the market after the announcement date.

DATA ANALYSIS, RESULTS AND DISCUSSION

The main objective of this study is to investigate the share price reactions to announcements of cash dividends by agricultural companies listed at the Nairobi Securities Exchange. These announcements relate to announcement of cash dividend. Therefore, reaction of dividend announcement will be checked on the value of the agricultural shares in this study. For this study, data from seven agricultural companies listed in the NSE has been collected from. The data spans from 2009 -2012. The impact of dividend announcements on agricultural share prices 15 days before this announcement and 15 days after this announcement has been checked in this study. The actual returns for event firms and the average market returns with respect to each specific announcement have been calculated in order to calculate the abnormal returns of these event firms. Standard deviations of the entire event firms have also been calculated along with calculation of CAR and values of t statistics were also calculated later on by dividing CARs by standard deviations.

Event Period

The event period for each security was determined around the announcement days which were taken as -15 days before the announcement and 15 days after the announcement with the announcement day treated as day zero making the total event period to be 31 days, the 31 day period was chosen since the market was considered to be stable. A stable market period is essential for collecting samples. Otherwise, the empirical results may be contaminated by the other factors suchas market volatility to reduce the effect of other external factors other than announcement of dividends that may negatively or positively influence share prices.

Stock returns and Market returns

The stock returns (*Rit)* and market returns (Rmt) during the event period were derived as follows and were used in the computation of abnormal returns.

Rit is the time *t* return on security *i*, calculated as (Pit – Pit-1)/Pit-1.

Where, Pit is the market closing price of share *i* on day *t*. Pit-1 is the market closing price of share *i* on day *t-1*.

Rmt is the time *t* return on the NSE all-share price index calculated as (It –It-1)/It-1. Where, Iit is the market index on day *t*. It-1 is the market index on day *t-1*.

Abnormal Returns

The market adjusted abnormal returns were computed as follows:

$MAAR_{it} = Rit - Rmt$

Where, $MAAR_{it}$ is the market adjusted abnormal return for security *i* over time t

Cummulative Abnormal Returns (CAR)

CAR is calculated as follows:

$$CARt = \sum_{t=i}^{t=j} = MAAR$$

Where, CARt is cumulative abnormal return, MAARt as defined above, j denotes the day -15 through day +15. The result of the computation is included in Table I. The results show a strong between the abnormal trading and abnormal returns just a few days to announcement. This is consistent with Miller's [34] theory combined with the view that retail investors intensify their speculative positions before the event. To test the significance of the cumulative abnormal returns (CAR), using a sample drawn from the period 2009-2012, the results showed a significant relationship between dividend announcements and share prices.Also in Figure 3, the platykurtic (flatter than the normal distribution curve) shape of the CAR curve, meaning a hump shape, lends credence to the argument that abnormal returns persisted for some time after the announcement of dividends, although the curve has some spikes as shown in the Cumulative Abnormal Return curve (Figure 3). This is consistent with Woolridge [41] finding that dividend announcements contain information that affects stock prices.

Empirical Findings and Analyses

Table 1 depicts average abnormal returns of firms around 31 days i.e., -15 and +15 days. It shows that the value of average abnormal return was negative during nine days before announcement date and it was

negative for six days after dividend announcement date. But near about same pattern was followed in the cumulative average abnormal return of these firms. Moreover, average abnormal returns on announcement date and two days after announcement is also positive which depicts the positive reaction of investors to this dividend announcement. In table 1, data relating to agricultural firms have been analyzed. The table explains abnormal returns, standard deviations and cumulative abnormal returns of 7 agricultural firms listed at the NSE. It is evident from data that the value of t statistics on dividend announcement date is significant with figure of 6.432. It has also been found that out of 15 days before dividend announcement, t values are significant about nine days with insignificant value of -1.087

Table-1: Average Abnormal Returns, Standard Deviation and Cumulative Average Abnormal Returns for the Agricultural Firms listed at the NSE over a window period day -15 to +15 relative to dividend announcement day (0- day)

Day	AAR	SD	CAR	T VALUE
-15	-0.00207	0.038997	-0.0424	-1.08721
-14	0.002553	0.026296	0.019002	0.722617
-13	0.005974	0.029882	0.090583	3.031355
-12	0.000804	0.034267	-0.00858	-0.25046
-11	0.001688	0.026624	0.015136	0.568504
-10	0.001147	0.021382	0.003795	0.177508
-9	-0.00159	0.022625	-0.0666	-2.94378
-8	0.008797	0.02883	0.031877	1.105683
-7	-0.00091	0.033078	0.0403	1.218312
-6	-0.00328	0.02302	-0.09416	-4.09028
-5	0.005554	0.019564	0.091309	4.66715
-4	0.001801	0.021993	-0.04394	-1.99816
-3	-0.00203	0.028129	-0.07376	-2.62227
-2	-0.00151	0.015569	-0.03722	-2.39058
-1	0.008453	0.023303	0.104035	4.464518
0	0.016174	0.040242	0.258849	6.432319
1	0.009199	0.03	0.174476	5.815861
2	0.00138	0.033092	0.06589	1.991129
3	-0.00095	0.046978	-0.00991	-0.21085
4	-0.00332	0.056786	-0.0839	-1.4775
5	0.005147	0.027226	0.075798	2.784015
6	0.004339	0.028122	0.028503	1.01355
7	0.000334	0.021525	0.023743	1.103041
8	0.002591	0.02079	0.017134	0.824148
9	-0.00035	0.058953	0.063274	1.073297
10	0.010103	0.022608	0.131669	5.824012
11	0.004089	0.01928	0.029855	1.548532
12	-0.00479	0.025024	-0.10514	-4.20149
13	0.004946	0.03242	0.112109	3.458007
14	0.005674	0.029304	0.106254	3.625879
15	0.007486	0.021925	0.076245	3.477454

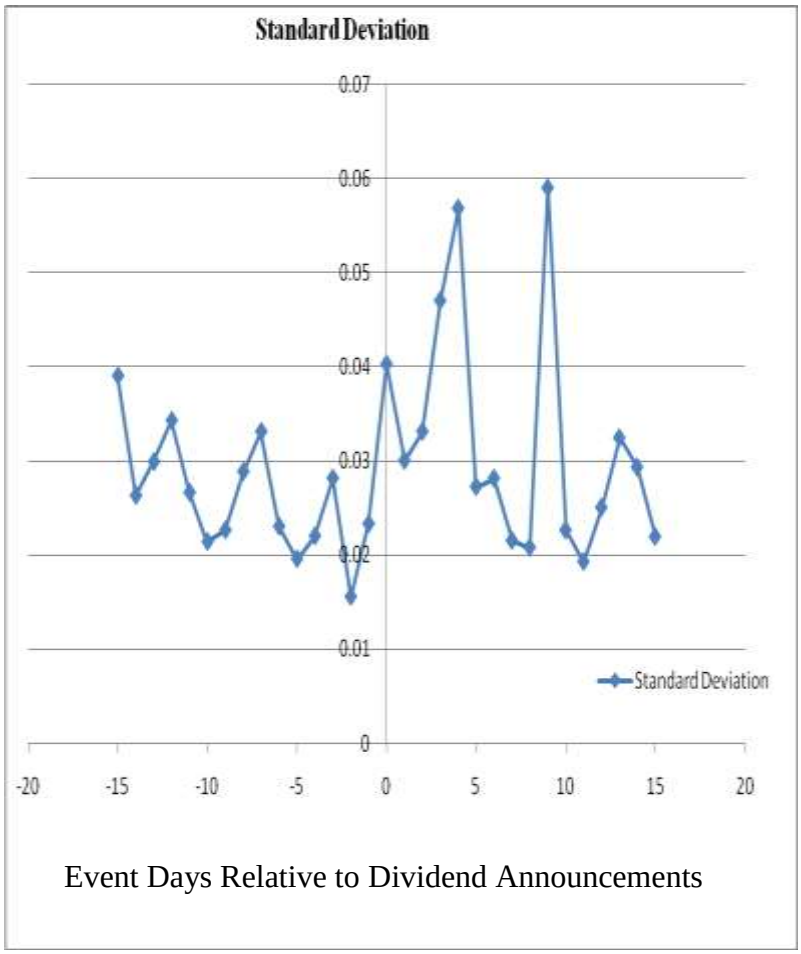

Fig-1: Average Squared Standardized Abnormal Returns during the 31 day event window

Fig-2: Average Abnormal Returns during the 31 day event window

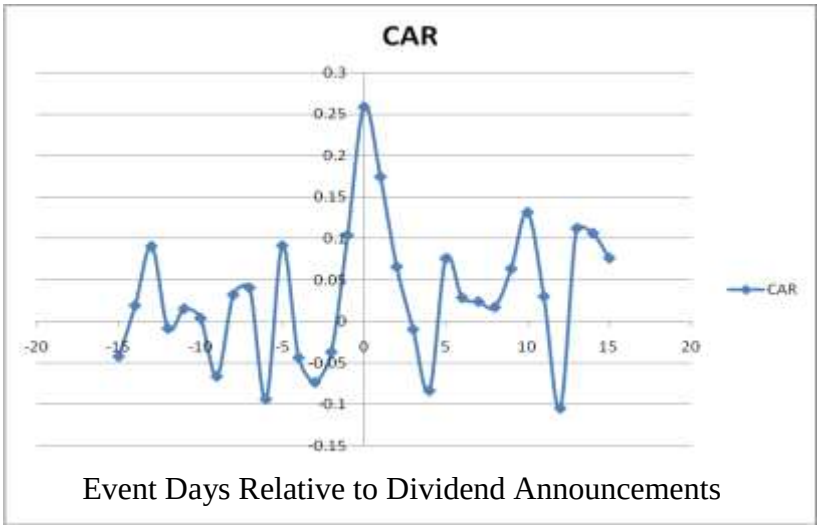

Fig-3: Average Abnormal Returns during the 31 day event window

Table-2: Listed Agricultural Companies at the NSE used in the analysis

No.	Name of the Company
1	Eaagads Ltd
2	Kapchorua Tea Co. Ltd
3	Kakuzi
4	Limuru Tea Co. Ltd
5	Rea Vipingo Plantations Ltd
6	Sasini Ltd
7	Williamson Tea Kenya Ltd

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This study fulfills the recommendation by Olweny T [27]. Which suggested analysis on sector by sector basis, looking at the various market phases. He suggested that this will help uncover the effect of dividend announcement on firm value on a sector by sector basis and what this implies on the efficiency of the NSE. This study has therefore attempted to provide additional empirical evidence on whether dividend payout announcements provide useful information on the prices of shares by analyzing the Agricultural sector. The study therefore, made a contribution towards resolving the empirical issue as to whether final dividend announcements convey useful information to capital market participants with specific reference to a agricultural firms listed on the Nairobi Securities Exchange. Such an attempt was crucial in establishing the validity of the "informational content of dividends" hypothesis. Analysis has been done through an event study during the days surrounding the announcements of annual earnings based on a 31-day observation window period for the sample of 7 listed agricultural companies at the NSE over the years 2009 to 2012. Other studies conducted in developed worlds continue to show that different categories of clients have different preference for dividends.

CONCLUSION

The study finds that there are some firms whose abnormal return were negative on the dividend announcement date but became positive immediately after the dividend announcement date. There are some other companies, whose abnormal returns were positive on the dividend announcement date and some days before and after the announcement date. There are instances where dividend announcement day return was negative but it was positive before and after the dividend announcement date. Overall results indicate that impact of dividend on dividend announcement date and few days after were positive. These results confirm the theoretical background regarding the impact of dividend on the stock prices. It shows that dividend distribution is relevant for future price determination. In conclusion, the results in the study show a significant relationship between unexpected dividend announcements and share prices; and therefore support the hypotheses that: First, dividends announcements have information content. This means the null hypothesis that dividend announcements have no information content is rejected with 95 percent confidence level. Second, the null hypothesis that dividend announcements have no influence on share prices is also rejected at the same level of confidence. This means that the information contained in dividend announcements has influence on a share prices.

Practical Application and Future Implications of the Findings

As this study provides a detailed analysis of dividend announcement impact on share prices, it can be helpful for investors and investment managers in understanding the behavior of market with regard to dividend announcement. This study can be further expanded in future in other areas like impact of merger/acquisitions, stock splits, stock repurchase and their impact on stock prices.The findings of this study will provide vital information to the managers of firms in Kenya and will help them in making dividend and disclosure policies regarding the information to be released to the stock market, this information will also be important to the investors, the Capital Market Regulators and shareholders on the correlation between announcement of dividends and share price reactions and will send very strong signals about the future prospects of several firms.The managers of the firm usually have private information about the future prospects of the firm and this leads to information asymmetry between managers and shareholders and may cause agency conflicts between the management and shareholders, the capital market regulation tries to regulate this, Despite the regulation, the information asymmetry among Kenyan companies trading at the Nairobi Stock Market still persist. Therefore, dividend announcements provide the shareholders and the general public very vital information about the future prospect of the firm and the tax effects thus reducing the level of information asymmetry. This study contribute to the body of knowledge by giving the empirical evidence on the relevance and impact of dividend announcements on share prices by studying firms in Kenya which is a developing country, it therefore presents the scholars with an opportunity to compare and contrast the results of this study with other studies that have been done in developed economies. The findings of this study confirm that dividend announcements contain information about the share prices. It therefore helps the investors to make informed choices on their portfolios. It further reduces information asymmetry thus it helps in alleviating the conflicts between the managers and the investors. Finance managers would be able to examine how the various market frictions such as asymmetric information, agency costs, taxes, and transaction costs affect their firms, as well as their current shareholders, to arrive at reasonable dividend policies.

Limitations of the Study

The main limitation of the study is the assumption that the share prices will reacts to dividend announcements only while indeed the market is usually very volatile and there are many external and internal factors that may influence the share prices. Examples of internal factors that may positively or negatively influence the share prices include corporate events like debt issue announcements, mergers and acquisitions, bonus issues and share split. On the other hand the external factors that may influence agricultural share price reactions include elections, wars, and acts of terrorism, unpredictable weather patterns and strikes. The window period of 31 days covered by the sample was also short, this was done to reduce the effect of market volatility to other factors however the findings of the study can further be verified through studies covering longer durations.

Recommendations for Further Research

The findings of this study can in the future be corroborated by other future studies which should be conducted using larger samples over longer periods of time. Further research should also be conducted using data from other sectors of the economy such as the banking sector, the automobiles among other sectors.

The results of this study can further be verified through researches conducted and analyzed using other models and by also classifying the news which come with the announcements.

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