

# Effects of Dividend Announcements on Stock Prices at Nairobi Securities Exchange

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## Abstract

The paper discusses the concept of efficient market hypothesis at Nairobi Securities Exchange. The research was carried out to investigate the effects of dividend announcements on stock prices at NSE in semi-strong form. Secondary data was collected and analysed from Nairobi Securities Exchange. It was concluded that Nairobi Securities Exchange is not efficient in semi-strong form.

**Keywords:** semi-strong, efficient market hypothesis, dividend announcements, cumulative abnormal returns

## 1. Introduction

Most of efficient market hypothesis research have been carried out in developed stock markets such as US (Pettit, 1972) and UK (Lonie, Abeyratna, Power, & Sinclair, 1996). Despite vast research in developed countries, very little work has been undertaken in developing countries. According to Mlambo, Bickpe & Smit (2003), the researches done on effect of dividend announcement on share prices in developing countries show mixed results. Some show the markets are efficient in semi-strong while others show completely opposite. In Kenya, Dickinson & Muragu (1994) found evidence of efficiency in the weak form market at NSE.

## 2. Efficient Market Hypothesis (EMH)

The efficient market hypothesis holds that a market is efficient if it is impossible to make economic profits by trading on available information. According to Kendall (1953), stock and commodity prices behave in a random walk way, that is, stock price changes behave as if they were independent random drawings. This means that technical analysis trading based on information in the past price series cannot be expected to make above-normal returns.

### Efficient Market Hypothesis

Efficient Market Hypothesis (EMH) is associated with Eugene Fama. According to Fama (1970) an efficient market is one where information is universally available to all investors at a no cost, current security prices reflect all relevant information, and security prices only change when new information becomes available. Arnold (2008) states that (EMH) implies that, if new information is revealed about a firm, it will be incorporated into the share price rapidly and rationally, with respect to the direction of the share price movement and the size of that movement. The author says that in an efficient market no trader will be presented with an opportunity for making a return on a share that is greater than a fair return for risk associated with that share, except by chance. The absence of abnormal profit possibilities arises because current and past information is immediately reflected in current prices. It is only new information that results in price change. Prices do not depart from the true economic value, one will not come across an investor beating the market in any single time period, and no investor following a particular investment strategy will beat the market in the long term. Where investors have rational expectations, available information is reflected in the prices and marginal utility weighted prices do follow martingales. Samuelson (1965) and Mandelbrot (1966) provide the modern theoretical rationale behind the efficient markets hypothesis that unexpected price changes in a speculative market must behave as independent random drawings if the market is competitive and economic trading profits are zero. They argue that unexpected price changes reflect new information. Since new information by definition is information that cannot be deduced from previous information, new information must be independent over time. Through his interest in temporal pricing models, Samuelson developed the idea of efficient markets. Several researches were inspired by his development and analysis such as: warrant and option-pricing analysis and, ultimately, the Black & Scholes (1973) and Merton (1973) option-pricing models.

## 3. Research methodology

The data was collected through purposive sampling. The sample consisted of 15 companies which fulfilled the set criteria in sampling method out of 59 listed at NSE in 2009. For a firm to qualify for inclusion in the total sample it had to satisfy the criteria as follows; the firm must have paid cash dividend between October 2008 and March 2010. The firm must have traded for a period greater than six months to provide enough data for the event window and estimation window. There should be no other price sensitive announcements made during the study

period. The companies should have enough data points or should not have stopped trading at some point during the period to avoid data gaps.

The event study methodology was employed using standard market model. The event window consisted of 40 days prior to event and 40 days after the event of dividend announcement.

#### 4. Results

Both the abnormal returns and cumulative abnormal returns for all the firms included in the sample were found to be non-zero and statistically significant for all the days in the event window. The study therefore accepts null hypothesis that the Nairobi Securities Exchange does not react efficiently with respect to changes in the prices of listed securities in response to dividend announcements by companies listed.

Mean cumulative abnormal returns show a sudden increase on day 38 up to day 34 prior to announcement then it starts decreasing even after the event. The findings show information leakage but the market underrated it. What is of significance is the unfavorable reception of the dividend by shareholders, which led to a steady decline in the MCAR's.

#### 5. Conclusion

From the above an overall interpretation can be drawn that NSE showed a clear departure from the efficient market hypothesis in the year 2009 with two major drawbacks; information leakage prior to the announcement dates and slow readjustments following announcements. These two drawbacks make it relatively easy for uninformed investors to achieve abnormal returns by simply observing the announcement without any additional analytical effort.

Mlambo, Bickpe & Smit (2003), concluded that in African markets information arrives slowly, and that it is factored slowly into market prices.

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### Mean Market Returns Around Period of Dividend Announcement

Day	TAR	MAR	MCAR	Day	TAR	MAR	MCAR	Day	TAR	MAR	MCAR
-40	(0.0704)	(0.0047)	(0.0047)	-9	(0.0597)	(0.0040)	(0.1384)	22	(0.0199)	(0.0013)	(0.4031)
-39	(0.2215)	(0.0148)	(0.0195)	-8	(0.0988)	(0.0066)	(0.1450)	23	0.0378	0.0025	(0.4006)
-38	0.2715	0.0181	(0.0014)	-7	(0.0791)	(0.0053)	(0.1503)	24	(0.0798)	(0.0053)	(0.4059)
-37	0.0192	0.0013	(0.0001)	-6	(0.0272)	(0.0018)	(0.1521)	25	(0.0928)	(0.0062)	(0.4121)
-36	0.0263	0.0018	0.0017	-5	(0.0815)	(0.0054)	(0.1575)	26	(0.2087)	(0.0139)	(0.4260)
-35	(0.1410)	(0.0094)	(0.0077)	-4	(0.0399)	(0.0027)	(0.1602)	27	0.0715	0.0048	(0.4213)
-34	0.0557	0.0037	(0.0040)	-3	0.0166	0.0011	(0.1591)	28	0.0091	0.0006	(0.4206)
-33	(0.1925)	(0.0128)	(0.0168)	-2	(0.2285)	(0.0152)	(0.1743)	29	(0.1349)	(0.0090)	(0.4296)
-32	(0.1652)	(0.0110)	(0.0279)	-1	(0.1377)	(0.0092)	(0.1835)	30	(0.0803)	(0.0054)	(0.4350)
-31	0.0198	0.0013	(0.0265)	0	(0.8442)	(0.0563)	(0.2398)	31	0.0668	0.0045	(0.4305)
-30	(0.1665)	(0.0111)	(0.0376)	1	(0.0252)	(0.0017)	(0.2415)	32	(0.1227)	(0.0082)	(0.4387)
-29	(0.0686)	(0.0046)	(0.0422)	2	(0.2042)	(0.0136)	(0.2551)	33	(0.2392)	(0.0159)	(0.4547)
-28	(0.1213)	(0.0081)	(0.0503)	3	(0.1304)	(0.0087)	(0.2638)	34	(0.0535)	(0.0036)	(0.4582)
-27	(0.0441)	(0.0029)	(0.0532)	4	(0.0491)	(0.0033)	(0.2670)	35	(0.0670)	(0.0045)	(0.4627)
-26	(0.0747)	(0.0050)	(0.0582)	5	(0.1629)	(0.0109)	(0.2779)	36	(0.0747)	(0.0050)	(0.4677)
-25	(0.0778)	(0.0052)	(0.0634)	6	(0.0888)	(0.0059)	(0.2838)	37	0.0221	0.0015	(0.4662)
-24	(0.0396)	(0.0026)	(0.0660)	7	(0.2582)	(0.0172)	(0.3010)	38	(0.0535)	(0.0036)	(0.4698)
-23	(0.0080)	(0.0005)	(0.0666)	8	(0.1198)	(0.0080)	(0.3090)	39	(0.0292)	(0.0019)	(0.4717)
-22	0.0269	0.0018	(0.0648)	9	(0.5693)	(0.0380)	(0.3470)	40	(0.0564)	(0.0038)	(0.4755)
-21	(0.0241)	(0.0016)	(0.0664)	10	(0.1180)	(0.0079)	(0.3548)				
-20	(0.1193)	(0.0080)	(0.0743)	11	(0.2076)	(0.0138)	(0.3687)				
-19	0.0344	0.0023	(0.0721)	12	(0.1006)	(0.0067)	(0.3754)		t-Test: Paired Two Sample for Means		
-18	(0.2116)	(0.0141)	(0.0862)	13	0.1364	0.0091	(0.3663)				
-17	(0.1005)	(0.0067)	(0.0929)	14	(0.0640)	(0.0043)	(0.3706)			-	0.0047
-16	(0.1368)	(0.0091)	(0.1020)	15	0.0331	0.0022	(0.3684)		Mean	(0.0014)	0.0045
-15	(0.0494)	(0.0033)	(0.1053)	16	(0.0887)	(0.0059)	(0.3743)		Variance	0.0001	0.0001
-14	(0.1541)	(0.0103)	(0.1155)	17	(0.0164)	(0.0011)	(0.3754)		Observations	80.0000	80.0000
-13	(0.0158)	(0.0011)	(0.1166)	18	0.0184	0.0012	(0.3741)		Pearson Correlation	0.4254	
-12	0.0001	0.0000	(0.1166)	19	(0.2492)	(0.0166)	(0.3908)		Hypothesized Mean	-	
-11	(0.1847)	(0.0123)	(0.1289)	20	(0.1020)	(0.0068)	(0.3976)		df	79.0000	
-10	(0.0829)	(0.0055)	(0.1344)	21	(0.0638)	(0.0043)	(0.4018)		t Stat	(5.7578)	
									P(T<=t) one-tail	0.0000	
									t Critical one-tail	1.6644	
									P(T<=t) two-tail	0.0000	
									t Critical two-tail	1.9905	