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Abstract

Purpose: The study comprised of earnings announcements and how they influence share prices at NSE.

Methodology: Event study methodology was followed over a five year period from 2012 to 2016. A census was carried out where 57 companies qualified to examination over the period through positivism approach. Average abnormal returns were tested for significance at 95% confidence level.

Results: The results indicated that NSE was efficient in semi-strong form for year 2012, 2013, 2014 and 2016 except for year 2015 where the market was found to be inefficient with regard to earnings announcements.

Unique contribution to theory, practice and policy: Earnings announcements are a statutory requirement. This calls on suggestions on how efficiency can be improved in the market to attract more investors. This can be done through improvement on existing policies to try and improve efficiency.

Keywords: Abnormal returns, efficient market hypothesis, Event study, Semi-strong form



INTRODUCTION

Background of the Study

Market efficiency is perhaps the most controversial topic in finance, partly for the reason that unethical operators from time to time conceal essential information from market that renders some investors vulnerable and sure victims of insider trading and information asymmetry. On the other hand, due to anomalies, security prices display an almost predictable pattern that outwits efficiency theory. Fama (1970) conducted numerous studies on information efficiency in an attempt to develop concepts about stock market efficiency but still there are incidences when security prices depart from expected random walk behavior.

According to efficient market hypothesis, it is difficult to make abnormal profits in a market regarded to be efficient through transactions based on information which is available. Kendall (1953) recorded that security prices always portray random movement in the market. This means that technical analysts cannot benefit from past information in order to make abnormal profits. Efficient Market Hypothesis (EMH) is associated with Eugene Fama. According to Fama (1970) a market is regarded to be efficient if public information is available freely to market participants and that information is incorporated in the security prices whereas prices change when new information is introduced in the market. Arnold (2008) states that (EMH) implies that, when information about a company is revealed, rapid and rational incorporation of this information into the share prices will take place bearing in mind the size and direction of motion. It is highly unlikely for a trader to benefit and make abnormal profits in a market which is efficient. Mandelbrot (1966) argued that changes in prices which are unexpected in a market which is speculative must show random movements with zero chances of making profits. New information is evidenced by unexpected price changes.

Statement of the Problem

Owing to the importance of having an efficient market to facilitate allocation of finances in the economy, the question arose as to whether NSE is efficient in incorporating all publicly available information in the prices of shares. The study sought to address the controversy of whether the NSE is efficient or not in semi-strong form around earnings announcements.

Objective of the Study

The major objective was to determine the effect of earnings announcement on share prices at NSE. This was to help in assessing semi-strong efficiency of the market with regard to earnings announcements. The hypothesis was as shown below:

 $H_{0:}$ The share prices are not significantly influenced by earnings announcements at NSE.



LITERATURE REVIEW

Signaling theory

Signaling theory pioneers include Bhattacharya (1979) and Ross (1977). Where the market is inefficient managers can use dividend information to influence stock prices (Ross, 1977). When level of declared dividends rise, share prices also rise while a decline in declaration leads to decrease in prices of stock. The study concluded that information about expected earnings can also be inferred through dividend declared in an inefficient market. Miller and Modigliani (1961) observed that there is an increase share prices for companies that declare a dividend increase though some investors may not be interested in dividend value but the high hope of increased earnings in future. The opposite happens when there is a decrease in amount of dividend declared. This is due to the signal that decreased dividends declared shows there will be decrease in expected earnings.

Random Walk Theory

Kendall (1953) is the one who advanced this theory and put it into limelight. The theory suggests that future prices of securities cannot be predicted as they presume a random movement. The study did not find a particular cycle being followed by prices thus assumed price trends to be irregular. This led to the belief that you cannot outperform a market through technical analysis and fundamental analysis. According to Fama (1965) future prices are independent of past prices and price changes follow a form of probability distribution. This led to the conclusion that past prices trends cannot be effectively used to outperform the market.

Evidence on Earnings Announcements

Ball and Brown (2014) investigated whether accounting information such as net income has an effect on share prices. They concluded that investors use accounting information to make market based decisions. Janet and Mallikarjunappa (2016) studied how quarterly earnings announcements influence stock prices at BSE. The study concluded Indian stock market to be inefficient as some players could comfortably forecast prices and benefit from abnormal returns. Mondher (2017) studied simultaneous announcements of dividend and earnings of listed French companies in Tunisia. The results showed that there was negative interaction between the dividends and earnings.

Several studies have been carried out locally. Elijah, David and Patrick (2015) researched on how earnings announcements influence stock prices at NSE. The results indicated that excess returns were experienced whenever an earnings announcement was made. Out of the 20 firms sampled, 11 had increased earnings while 9 declared reduced earnings. There was delayed reaction where firms declared decreased earnings. The study concluded excess returns takes more than 28 days after earnings announcement which is inconsistent with semi strong sub hypothesis where information is adjusted rapidly hence the market not efficient. Olang and Akenga (2017) carried a study on how price to earnings affect stock prices on companies listed at NSE. The results concluded that the abnormal returns were not significant during the window period concluding the market is efficient.

Kurgat (2017) studied post income declaration at NSE where firms that declared negative news experienced downward movement in returns and the firms' with positive news vice



versa for period less than 60 days after announcement. According to Kiremu, Galo, Wagala and Mutegi (2013) earnings announcements were found not to have effects on firms' value which shows the market is efficient. Musyoki (2012) observed that favorable earnings can highly influence share prices due to high demand for the company share prices increasing stock returns.

METHODOLOGY

The study employed event study methodology which is descriptive in nature. The population consisted of 57 companies that traded consistently from year 2012 to 2016. Census sampling led to 56 announcements qualifying for analysis. The individual abnormal returns were aggregated and mean analyzed to find the average abnormal returns which were tested for significance at 95% confidence level using t- statistic for every year. Secondary data was used and observation form involved in getting the details. The study employed excel and SPSS version 20 for data analysis.

DISCUSSIONS AND RESULTS

Earnings Announcements Analysis

There were 56 companies' announcements which qualified for analysis. The data was evaluated and the following results obtained. These are reflected in the Appendix I. Only one company did not qualify as it had some missing data gaps. They qualified for analysis for all the five years as every company always makes the earnings announcement since its statutory requirement to file earnings.

Analysis for year 2012 Earnings Announcements

The 56 announcements which qualified as shown in Appendix I were analyzed for the year 2012.

Table 1: Asset Pricing Characteristics of Earnings Issues at NSE year 2012

Company	$A = \alpha$	Β= β	t-statistic	R-squared
EAGADS	-0.00026	-0.90361	-1.04792	0.018582
KAKUZI	0.0019	-0.07438	-0.17072	0.000502
KAPCHORUA	0.000237	-0.02658	-0.0661	7.53E-05
LIMURU	0.001701	-0.25755	-1.02822	0.017902
REA VIPI	-0.00204	0.941693	1.807808	0.053342
SASINI	-0.00296	1.401403	3.11126	0.143025
WILLIAMSON	0.001332	-0.66881	-1.45941	0.035421
CAR & GEN	0.001486	2.748343	5.94603	0.378717
SAMEER	0.000349	1.008598	2.866692	0.124104
MARSHALLS	0.000235	-0.126	-1.91571	0.05951
CMC HOL	0	0	0	1
BARCL	0.0021	1.168188	3.745198	0.194741
CFC STANBIC	-0.0002	0.976513	3.275145	0.156076
DIAMOND	0.000346	0.156505	0.591941	0.006005
HFCK	-0.00076	0.46919	0.583856	0.005843
KCB	0.004334	0.985201	4.67428	0.273628
NBK	-8.9E-05	1.62245	6.318529	0.407703
NIC	0.004696	-0.11821	-0.24237	0.001012
STANDARD CHART	0.000823	1.31879	1.791249	0.05242
EQUITY	0.001683	0.411738	1.834686	0.054852



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COOP BANK	-0.00121	1.318246	4.183328	0.23179
HUTCH	0	0	0	1
KENYA AIR	-0.00216	1.550047	5.840207	0.370305
NMG	-0.00024	0.828781	4.727777	0.278175
STD GROUP	0.00015	-2.79687	-4.60994	0.268153
TPS EAST AF	-0.00123	1.517067	4.660638	0.272468
SCAN GROUP	0.000946	0.491106	1.514333	0.038034
UCHUMI	0.000552	1.857418	5.598164	0.350791
ATHI RIVER	0.000222	0.882946	2.244888	0.079942
BAMB	-0.00244	0.844274	2.127256	0.072374
CROWN	0.001769	0.584543	0.718452	0.008821
E.A. CABLES	0.000424	0.612651	1.430689	0.034088
E.A PORTLA	-0.00031	0.753974	10.2687	0.645143
KENOL KOB	0.002454	0.711182	3.567893	0.179979
TOTAL	0.001589	0.717472	2.197193	0.07684
KENGEN	-0.00324	1.502291	5.32227	0.328133
JUBILEE	-0.00072	0.741926	3.574427	0.180519
KPLC	-0.00118	1.479372	7.509345	0.492964
PAN AFRICAN INSURANCE	-0.00182	1.904898	5.476537	0.340853
KENYA RE	0.000923	0.665298	1.693419	0.047113
BRITISH AMERICAN INSURANCE	-0.00282	1.604961	2.841605	0.122206
CIC INS	-0.00218	0.540435	0.639849	0.007009
OLYMPIA H.	-0.00292	-0.61004	-1.64823	0.044743
CENTUM	-1.1E-06	0.663368	1.149646	0.02228
TRANSCENTURY	-0.00318	-0.59439	-0.7541	0.009709
CITY TRUST	0.001715	-0.24212	-0.52471	0.004725
BOC KENYA	0.00453	0.352025	0.833471	0.011835
BAT	0.002297	0.484753	1.517774	0.038201
CARBACID	0.000699	0.966515	2.025966	0.066091
EABL	0.002	0.432655	1.900249	0.058609
MUMIAS	-0.00155	2.445123	7.858558	0.515686
UNGA GROUP	-0.00287	-0.18231	0.709831	0.002405
KENYA ORCHA	0	0	0	1
A BAUMAN	0	0	0	1
SAFARICOM	0.002783	-0.26777	-0.92139	0.014426
ACCESS KENYA	-0.00318	1.12183	1.809462	0.053434

Table 1 indicates the regression results required for estimating expected returns. A beta of 1 exhibits average market risk while a beta more than 1 shows the stocks are exhibit risk more than the average market which means the share is expected to perform more than average with absence of firm specific information generating announcement. A beta less than 1 shows lower than average market risk on the stock. R squared explains the extent to which the relationship between dependent and independent variable can be explained. For example market returns (NSE 20 share index) can be approximated to have caused changes to stock return of PAN Africa Insurance at 34.0853% and above market average risk.



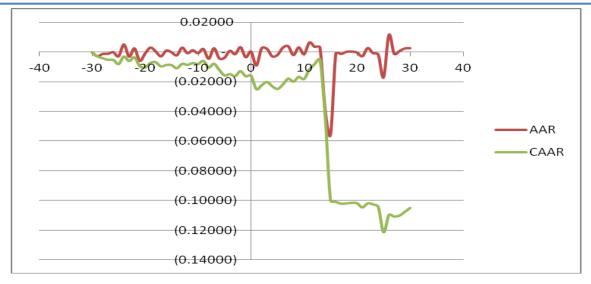


Figure 1: CAARs and AARs for Earnings Announcements year 2012

The individual AR were established, aggregated and averaged to find AAR for the market in 2012 analyzed in Figure 1. The AAR indicates normal random deviation from the mean until day 10 where a decline is established followed by upward movement to normal again. This shows the announcement had delayed impact on the returns. This can be interpreted that the market reacted slowly to the earnings announcement. The CAAR started to decrease showing a downward movement trend before rising at day 10 then diving downwards. This can be interpreted to mean that even before official day of announcement; the information was already out with investors who perceived it negatively and hence downward trend perhaps due to the political climate which was there.

Table 2: T test for significance for Earnings Announcements year 2012

	Test Va	alue =					
	T	Df	Sig. tailed)	(2-	Mean Difference	95% Confidence Int Differenc	
						Lower	Upper
AAREA20 12	-1.425	60		159	0017223	004140	.000696

The AARs for the period were tested for significance at 95% confidence level. The AARs were found to be insignificant as reflected in TABLE 2. The p value was .159 greater than 0.05 which led to null hypothesis being accepted. Thus null hypothesis was accepted. The same applied to the t test where the critical t is supposed to be between -1.96 to + 1.96 to accept the null hypothesis. The t value was -1.425 hence accepting the null hypothesis. Thus we conclude earnings announcement did not have significant effect on stock prices in year 2012. The findings are in contrast with Fredrick and Gabriel (2018) who observed ARs to be significant with regard to earnings announcement from year 2012 to 2016.



Analysis for year 2013 Earnings Announcements

The 56 announcements which qualified as shown in Appendix I were analyzed for the year 2013.

Table 3: Asset Pricing Characteristics of Earnings Issues at NSE year 2013

Company	Α= α	Β= β	t-statistic	R-squared
EAGADS	-0.00237	0.637651	0.984125	0.016424
KAKUZI	0.001067	0.163306	0.444203	0.00339
KAPCHORUA	0.000279	-0.11022	-0.41445	0.002953
LIMURU	0	0	0	1
REA VIPI	0.000245	0.228399	0.628476	0.006764
SASINI	-0.00107	1.05759	2.435376	0.092773
WILLIAMSON	-0.00013	0.753705	1.109982	0.020801
CAR & GEN	0.001348	0.13738	0.265078	0.00121
SAMEER	0.00323	-0.20082	-0.34259	0.002019
MARSHALLS	-0.00108	-0.30191	-1.12608	0.021395
CMC HOL	0	0	0	1
BARCLAYS	-0.00035	0.632462	3.342562	0.161519
CFC STANBIC	0.001657	0.733661	1.418197	0.033515
DIAMOND	0.001189	1.134508	2.082755	0.069586
HFCK	0.00068	0.800161	2.200242	0.077037
KCB	0.001115	1.267279	3.954743	0.212385
NBK	-0.00158	1.190015	3.206667	0.15059
NIC	6.22E-05	0.407474	1.692592	0.047069
STANDARD CHART	0.000604	0.224873	1.063629	0.019132
EQUITY	-0.00014	1.231968	4.628476	0.269731
COOP BANK	0.001015	0.675448	3.874807	0.205633
нитсн	0	0	0	1
KENYA AIR	-0.00239	0.190477	0.688101	0.008097
NMG	-0.0003	1.252818	3.760536	0.196026
STD GROUP	-0.00011	0.416025	0.739486	0.00934
TPS EAST AF	0.001769	-0.17413	-0.38732	0.00258
SCAN GROUP	0.001101	0.744198	1.628857	0.043743
UCHUMI	5.47E-05	0.099704	0.627396	0.006741
ATHI RIVER	-0.01418	3.522684	1.511533	0.037899
BAMB	0.002971	0.574866	2.148365	0.073711
CROWN	0.00122	0.092196	0.340311	0.001993
E.A. CABLES	0.002025	0.605008	1.929904	0.060341
E.A PORTLA	5.07E-06	-0.07295	-0.12666	0.000277
KENOL KOBIL	-0.00206	0.603791	1.821285	0.054097
TOTAL	0.000131	0.003261	0.011891	2.44E-06
KENGEN	-0.00141	3.249805	5.845872	0.370757
JUBILEE	0.001917	0.258035	0.769226	0.010099
KPLC	-0.00083	0.864914	3.288118	0.15712
PAN AFRICAN INSURANCE	0.002086	0.02624	0.10382	0.000186



KENYA RE	-0.00162	1.538972	3.852833	0.203781
BRITISH AMERICAN INSURANCE	0.000202	0.759684	2.403302	0.090565
CIC INS	0.002084	0.396894	0.929058	0.014664
OLYMPIA H.	-0.00554	2.608797	0.727268	0.009037
CENTUM	0.002367	0.689555	1.878729	0.057365
TRANSCENTURY	0.003185	-0.4644	-0.90744	0.013999
CITY TRUST	0.007017	-0.95555	-2.29948	0.083549
BOC KENYA	0.000473	-0.40339	-0.7195	0.008847
BAT	0.002361	0.756479	3.884075	0.206415
CARBACID	0.00178	-0.14771	-0.31196	0.001675
EABL	0.002857	0.682982	3.651259	0.186897
MUMIAS	-0.00529	1.565531	4.907313	0.293387
UNGA GROUP	0.000304	0.367036	0.630111	0.006799
KENYA ORCHA	0	0	0	1
A BAUMAN	0	0	0	1
SAFARICOM	0.002137	0.685269	1.895057	0.058308
ACCESS KENYA	0.00155	2.098422	3.584687	0.181369

TABLE 4 shows the results of asset pricing characteristics. A beta of 1 exhibits average market risk while a beta more than 1 shows that stocks are exhibiting risk more than the average market which means the share is expected to perform more than average with absence of firm specific information generating announcement. A beta less than 1 shows lower than average market risk on the stock. R square explains the extent to which the relationship between dependent and independent variable can be explained. For example market returns (NSE 20 share index) can be approximated to have caused changes to stock return of PAN Africa Insurance at .0186% and less than market average risk.

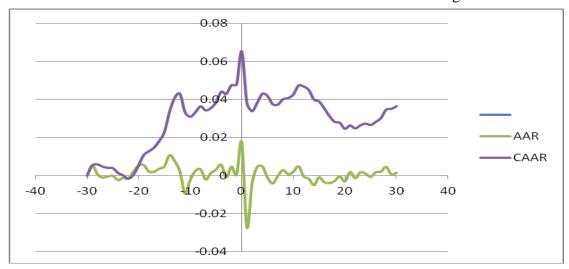


Figure 2: CAARs and AARs for Earnings Announcements year 2013

The individual AR were established, aggregated and averaged to find AAR for the market in 2013 as indicated in Figure 2. The AAR indicated sharp increase before day 0, the announcement date, followed by sharp decline after day 0 before normalizing. This indicated the announcement had an impact on the returns hence an impact on share prices. The CAAR



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started to increase at day -20 showing upward movement trend before decreasing after day 0. This can be interpreted to mean that even before official day of announcement; the information was already out with investors who perceived it positively and hence upward trend.

Table 4: T test results for significance for Earnings Announcements year 2013

	Test Va	alue =				
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
AAREA2013	.861	60	.393	.0005962	000789	.001981

TABLE 4 indicated the significance tests for abnormal returns. The AARs for the period were tested for significance at 95% confidence level. The AARs were found to be insignificant. The p value was .393 greater than 0.05 which led to null hypothesis being accepted. The same applied to the t test where the critical t is supposed to be between -1.96 to + 1.96 to accept the null hypothesis. The t value was .861 hence accepting the null hypothesis. Thus the study concluded that earnings announcement did not have significant effect on stock prices in year 2013. These findings are in contrast with observation that NSE is not efficient in semi strong form with a study that covered year 2007 (Grace, Robert, Samuel, George & Mary, 2013).

Analysis for year 2014 Earnings Announcements

The 56 announcements which qualified as shown in Appendix I were analyzed for the year 2014.

Table 5: Asset Pricing Characteristics of Earnings Issues at NSE year 2014

Company	Α= α	Β= β	t-statistic	R-squared
EAGADS	0.001779	-0.91032	-1.27856	0.03
KAKUZI	0.004158	0.200382	0.454726	0.003552
KAPCHORUA	0.004714	0.48568	1.004916	0.017113
LIMURU	0.00325	-0.85436	-1.6654	0.045638
REA VIPI	0	0	0	1
SASINI	0.005038	1.41665	2.57688	0.102727
WILLIAMSON	0.005434	1.253117	1.793446	0.052542
CAR & GEN	0.008625	1.042634	1.056282	0.018874
SAMEER	0.002042	0.323237	0.535511	0.00492
MARSHALLS	0.00138	-0.27666	-0.6297	0.00679
CMC HOL	0	0	0	1
BARCLAYS	-0.0015	0.473337	2.084181	0.069675
CFC STANBIC	0.004626	1.261922	3.397321	0.165969
DIAMOND	0.003193	0.807002	3.255742	0.154517
HFCK	-0.00034	1.744623	5.388011	0.333568
KCB	0.000675	1.189443	4.884859	0.291489
NBK	0.008624	1.570681	3.321379	0.159805
NIC	-0.00103	-0.31945	-0.56307	0.005437
STANDARD CHART	0.00073	0.686732	2.439057	0.093027



EQUITY	-0.00054	1.063434	3.146072	0.145775
COOP BANK	0.000424	0.850493	4.96052	0.297878
HUTCH	0	0	0	1
KENYA AIR	-0.00085	1.445905	4.133198	0.227525
NMG	0.000146	0.350135	1.56439	0.040487
STD GROUP	0.000426	0.549196	0.82721	0.01166
TPS EAST AF	-5.8E-05	0.297833	0.672613	0.00774
SCAN GROUP	-0.00101	1.385515	2.652721	0.108199
UCHUMI	-0.00172	1.146675	2.3134	0.084478
ATHI RIVER	0.002538	1.801263	5.132583	0.312335
BAMB	0.000418	0.975548	3.192206	0.149438
CROWN	0.003484	0.195995	0.501164	0.004312
E.A. CABLES	0.000174	1.140083	2.628704	0.106456
E.A PORTLA	-0.00052	0.152546	0.250998	0.001085
KENOL KOB	0.001801	1.066835	3.334669	0.16088
TOTAL	-0.00059	0.89226	1.521545	0.038383
KENGEN	-0.00465	0.628712	1.251177	0.026281
JUBILEE	0.001223	0.80397	2.329645	0.085566
KPLC	-0.00032	0.792182	3.403819	0.166499
PAN AFRICAN INSURANCE	0.008692	1.526188	2.175374	0.075436
KENYA RE	0.003274	0.485506	1.157259	0.022569
BRITISH AMERICAN INSURANCE	0.011309	1.779467	2.769671	0.116811
CIC INS	0.006256	1.123367	2.209818	0.077656
OLYMPIA H.	0.001345	-0.24409	-0.27723	0.001323
CENTUM	0.004178	0.503287	1.092186	0.020152
TRANSCENTURY	2.71931E-05	0.439390598	1.24539	0.026044854
CITY TRUST	0	0	0	1
BOC KENYA	0.003851	0.917153	1.746678	0.049973
BAT	-0.00022	0.542037	1.055859	0.018859
CARBACID	0.001781	1.390389	1.313864	0.028903
EABL	-0.00373	1.031807	3.758844	0.195884
MUMIAS	-0.00194	0.673707	1.874365	0.057114
UNGA GROUP	0.002513	0.01771	0.037537	2.43E-05
KENYA ORCHA	0	0	0	1
A BAUMAN	0	0	0	1
SAFCOM	0.004408	1.81081	5.498905	0.342686
ACCESS KENYA	0	0	0	1

TABLE 5 indicates the results of asset pricing characteristics for regression. A beta of 1 exhibits average market risk while a beta more than 1 shows the stocks are exhibiting risk more than the average market which means the share is expected to perform more than average with absence of firm specific information generating announcement. A beta less than 1 indicates lower than average market risk on the stock. R square explains the extent to which the relationship between dependent and independent variable can be explained. For example market returns (NSE 20 share index) can be approximated to have caused changes to stock return of Mumias Sugar at 5.7114% and less than market average risk.

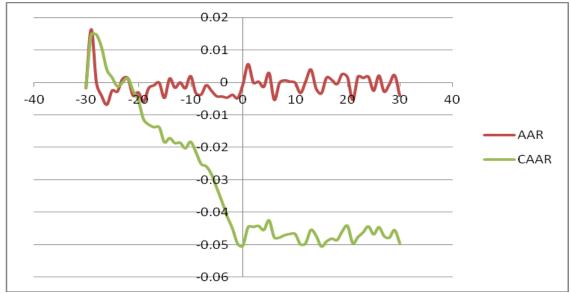


Figure 3: CAARs and AARs for Earnings Announcements year 2014

The individual AR were established, aggregated and averaged to find AAR for the market in 2014 and illustrated in Figure 3. The AAR indicated small decrease before day 0, the announcement date, followed by slight increase at day 0 which then normalized thereafter. This showed the announcement may have been perceived negatively before the ARs stabilized. The CAAR starts to decrease at day -20 showing downward movement trend before remaining at the negative side even after day 0. This can be interpreted to mean that even before official day of announcement; the information was already out with investors who perceived it negatively and hence downward trend.

Table 6: T test for significance for Earnings Announcements year 2014

	Test Va 0	alue =					
	T	Df	Sig. tailed)	(2-	Mean Difference	95% Confidence In Difference	
						Lower	Upper
AAREA20 14	-1.821	60	•	074	0008123	001705	.000080

The AARs for the period were tested for significance at 95% confidence level as reflected in TABLE 6. The AARs were found to be insignificant. The p value was .074 greater than 0.05 which led to null hypothesis acceptance. Thus null hypothesis was accepted. The same applied to the t test where the critical t is supposed to be between -1.96 to + 1.96 to accept the null hypothesis. The t value was -1.821 hence accepting the null hypothesis. Thus the study concluded earnings announcement did not have significant effect on stock prices in year 2014. Kiremu et al. (2013), recorded that earnings announcements led to AARs which were insignificant hence the NSE market was efficient hence similar findings with this study. This was in contrary to Maringa and Muturi (2016) who found the market to be inefficient when investigating dividend announcements at NSE.

Analysis for year 2015 Earnings Announcements

The 56 announcements which qualified as shown in Appendix I were analyzed for the year 2012 as illustrated in TABLE 7.



Table 7: Asset Pricing Characteristics of Earnings Issues at NSE year 2015

Company	Α= α	Β= β	t-statistic	R-squared
EAGADS	0.00089	0.387848	0.272199	0.001276
KAKUZI	0.006295	-0.98061	-1.05615	0.018869
KAPCHORUA	-0.00199	0.296177	0.59487	0.077873
LIMURU	0.001867	-1.41826	-1.56287	0.040411
REA VIPI	0	0	0	1
SASINI	3.21717E-05	1.765529929	2.946166	0.130172615
WILLIAMSON	0.001924	-0.29743	-0.39115	0.002631
CAR & GEN	0.000349	-0.99667	-1.20607	0.024466
SAMEER	0.001598	-0.44991	-0.76228	0.009919
MARSHALLS	0.019093	-0.38924	-0.12634	0.000275
CMC HOL	0	0	0	1
BARCLAYS	-0.00041	0.401689	1.670923	0.045927
CFC STANBIC	0.001242	0.246482	1.459636	0.035432
DIAMOND	-0.00089	0.154158	0.482657	0.004
HFCK	0.00023	0.571561	2.00535	0.064839
KCB	-1.5E-05	1.275622	4.231491	0.235892
NBK	0.000613	0.113976	0.244555	0.00103
NIC	-0.00029	0.774203	2.58967	0.103643
STANDARD CHART	-0.00188	0.054612	0.237773	0.000974
EQUITY	0.000544	1.342028	4.102745	0.224936
COOP BANK	0.000276	0.507186	1.721692	0.048622
HUTCH	0	0	0	1
KENYA AIR	0.003499	1.573584	3.308791	0.158787
NMG	-0.00297	1.706039	3.578847	0.180885
STD GROUP	0.003513	0.8557	0.992756	0.016709
TPS EAST AF	-0.00078	0.756932	1.227501	0.025321
SCAN GROUP	0.000459	0.349017	0.677846	0.00786
UCHUMI	0.003211	0.379944	0.647581	0.007178
ATHI RIVER	-0.00023	0.669456	2.109123	0.071233
BAMB	-0.00015	0.955217	1.850328	0.055739
CROWN	0.004847	0.028128	0.04081	2.87E-05
E.A. CABLES	0.000314	0.26011	0.852765	0.012383
E.A PORTLA	0.003805	0.281772	0.314976	0.001708
KENOL KOBIL	0.001646	0.217933	0.492253	0.00416
TOTAL	0.001065	-0.2845	-0.45403	0.003542
KENGEN	-0.00162	1.421994	4.146792	0.228681
JUBILEE	0.002503	1.293289	3.001501	0.134445
KPLC	0.000322	0.070571	0.192167	0.000636
PAN AFRICAN INSU	-0.0012	1.237652	2.953118	0.130707
KENYA RE	0.002205	-0.35326	-0.60977	0.00637
BRITISH AMERICAN IN	0.001062	1.600184	4.008961	0.216976
CIC INS	0.002017	0.518021	1.546254	0.03959
OLYMPIA H.	0.00051	0.370741	0.381713	0.002506



CENTUM	-0.00059	1.111248	3.009502	0.135065
TRANSCENTURY	0.000657	0.362872	0.492227	0.00416
CITY TRUST	0	0	0	1
BOC KENYA	0.000744	0.992612	1.412164	0.03324
BAT	-0.0019	1.355017	2.8247	0.120931
CARBACID	0.002363	0.83742	1.571047	0.040818
EABL	0.001514	0.800696	2.310978	0.084316
MUMIAS	0.009064	-0.24493	-0.21755	0.000815
UNGA GROUP	-5.9E-05	1.765771	2.52193	0.098821
KENYA ORCHA	-0.00262	0.712083	2.970467	0.132044
A BAUMAN	0	0	0	1
SAFARICOM	0.000717	0.961494	2.809602	0.119797
ACCESS KENYA	0	0	0	1

A beta of 1 exhibits average market risk while a beta more than one shows the stocks are exhibit risk more than the average market which means the share is expected to perform more than average with absence of firm specific information generating announcement. A beta less than 1 shows lower than average market risk on the stock. R square explains the extent to which the relationship between dependent and independent variable can be explained. For example market returns (NSE 20 share index) can be approximated to have caused changes to stock return of Mumias Sugar at 0.0815% and less than market average risk.

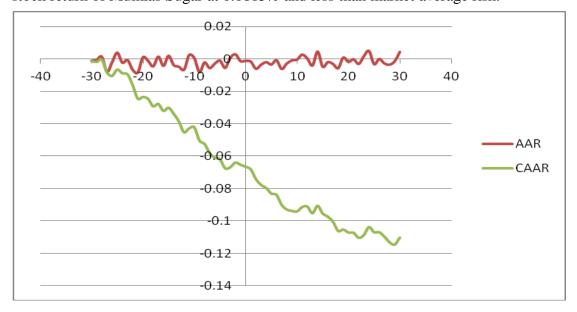


Figure 4: CAARs and AARs for Earnings Announcements year 2015

The individual AR were established, aggregated and averaged to find AAR for the market in 2015 and presented in Figure 4. The AAR indicated small decrease before day 0, the announcement date, followed by slight increase at day 0 which then normalized thereafter. This indicated that the announcement may have been perceived negatively before the AARs stabilized. The CAAR starts to decrease at day -30 showing downward movement trend before remaining at the negative side even after announcement date and continues on negative trend even at day 30. This can be interpreted to mean that even before official day of



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announcement; the information was already out with investors who perceived it negatively and hence downward trend.

Table 8: T test results for significance for Earnings Announcements year 2015

	Test Va 0	alue =					
	T	Df	Sig. tailed)	(2-	Mean Difference	95% Confidence In Difference	
						Lower	Upper
AAREA20 15	-4.398	60	.00	00	0018054	002626	000984

The AARs for the period were tested for significance at 95% confidence level as indicated in Table 8. The AARs were found to be significant. The p value was .000 less than 0.05 leading to null hypothesis being rejected. Thus null hypothesis was rejected and alternative hypothesis accepted. The same applied to the t test where the critical t is supposed to be between -1.96 to + 1.96 to accept the null hypothesis. The t value was -4.398 hence accepting the alternative hypothesis. Thus the study concluded earnings announcement did have significant effect on stock prices in year 2015. The findings were contrary to Kiremu et al. (2013), who showed NSE market to be efficient in semi-strong form.

Analysis for year 2016 Earnings Announcements

The 56 announcements which qualified as shown in Appendix I were analyzed for the year 2016.

Table 9: Asset Pricing Characteristics of Earnings Issues at NSE year 2016

Company	$A = \alpha$	Β= β	t-statistic	R-squared
EAGADS	-0.01495	-1.70079	-0.54115	0.005024
KAKUZI	-0.00182	0.001604	0.077019	0.000102
KAPCHORUA	-0.00733	0.408871	0.472741	0.003838
LIMURU	-0.00633	-0.37732	-0.90587	0.013951
REA VIPI	0	0	0	1
SASINI	0.013951	1.961185	2.508261	0.097857
WILLIAMSON	-0.00811	0.664493	0.65656	0.007377
CAR & GEN	0.001833	-0.05137	-0.19294	0.000641
SAMEER	-0.001	0.137068	0.183214	0.000578
MARSHALLS	-0.00121	-0.22825	-1.1278	0.021459
CMC HOL	0	0	0	1
BARCLAYS	-0.00112	0.555606	2.0069	0.064933
CFC STANBIC	-0.00183	1.64581	3.30136	0.158188
DIAMOND	-0.00016	-0.21448	-0.57476	0.005663
HFCK	-2.8E-05	1.37838	3.949306	0.211925
KCB	0.00015	0.714331	2.141413	0.07327
NBK	-0.00067	0.077331	0.134047	0.00031
NIC	0.004784	1.687769	4.596935	0.267046
STANDARD CHART	-0.0013	0.433887	1.619285	0.043253
EQUITY	0.00	1.011093	2.844761	0.122444
COOP BANK	-0.00052	0.445303	2.381552	0.089079
HUTCH	-0.00181	0.002142	0.218408	0.000822
KENYA AIR	0.000268	0.931677	1.78107	0.051857
NMG	0.005748	1.34382	2.901074	0.126719
STD GROUP	0.000472	1.174243	1.377607	0.031684



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TPS EAST AF	-0.00219	-0.526	-0.8117	0.011427
SCAN GROUP	0.002438	0.015278	3.186041	0.148947
UCHUMI	-0.00044	0.01368	0.010861	2.03E-06
ATHI RIVER	-0.00184	2.062759	3.494869	0.173955
BAMB	0.000766	0.331314	1.625597	0.043576
CROWN	9.99E-05	-0.55856	-0.85796	0.012532
E.A. CABLES	-0.00291	1.586032	2.139941	0.073177
E.A PORTLA	0.005609	0.839299	1.097086	0.02033
KENOL KOBIL	0.004717	1.501422	2.692235	0.111086
TOTAL	-0.00095	0.015098	0.026219	1.19E-05
KENGEN	-0.00193	2.166699	4.158576	0.229684
JUBILEE	0.000923	0.541278	0.918065	0.014324
KPLC	-0.00097	0.581543	2.775616	0.117254
PAN AFRICAN INSURANCE	-0.0003	0.654011	6.676431	0.434559
KENYA RE	-0.00027	0.680934	2.417887	0.091567
BRITISH AMERICAN INSURANCE	-0.00293	0.383872	0.995915	0.016813
CIC INS	-0.00168	-0.5243	-1.53098	0.038842
OLYMPIA H.	-0.00271	1.002395	25.8913	0.920369
CENTUM	-0.00088	0.24465	1.064963	0.019179
TRANSCENTURY	-0.00982	-0.33676	-0.42152	0.003054
CITY TRUST	0	0	0	1
BOC KENYA	0.000737	0.598367	0.969095	0.015934
BAT	9.38E-05	5.14E-05	0.002635	1.2E-07
CARBACID	0.000613	1.061762	1.9104	0.0592
EABL	0.000534	0.433818	1.563473	0.040441
MUMIAS	0.002344	1.18942	2.140159	0.07319
UNGA GROUP	-0.00023	0.358282	0.458827	0.003617
KENYA ORCHA	-0.00018	-0.00699	-0.25984	0.001163
A BAUMAN	-0.00298	0.23584	0.676501	0.007829
SAFARICOM	-8E-06	0.8871	3.12062	0.143763
ACCESS KENYA	0	0	0	1

Table 9 indicated the asset pricing characteristics for year 2016. A beta of 1 exhibits average market risk while a beta more than 1 shows the stocks are exhibiting risk more than the average market which means the share is expected to perform more than average with absence of firm specific information generating announcement. A beta less than 1 shows lower than average market risk on the stock. R square explains the extent to which the relationship between dependent and independent variable can be explained. For example market returns (NSE 20 share index) can be approximated to have caused changes to stock return of Mumias Sugar at 4.0441% and less than market average risk.

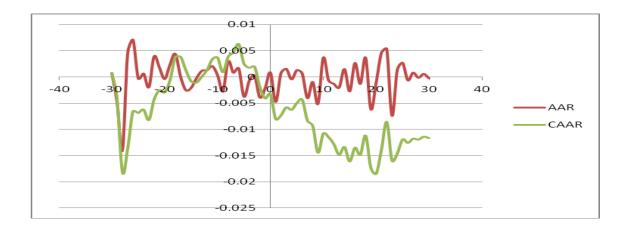




Figure 5: CAARs and AARs for Earnings Announcements year 2016

The individual AR were established, aggregated and averaged to find AAR for the market in 2016 as indicated in Figure 5. The AAR indicated disturbance on either side before and after announcement. The CAAR started to decrease at day -30 showing downward movement trend before rising to positive side on day -20. It rose up to day -5, then declines at day 0, the announcement date where the negative trend continued thus showing mixed signals. This can be interpreted to mean that even before official day of announcement; the information was already out with investors who perceived it negatively and hence downward trend and positively at day -20.

Table 10: T test results for significance of Earnings Announcements year 2016

	Test Va	alue =						
	T Df		Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference			
						Lower	Upper	
AAREA20 16	442	60		.660	0001916	001058	.000675	

The AARs for the period were tested for significance at 95% confidence level as in TABLE 10. The AARs were found to be insignificant. The p value was .660 greater than 0.05 which led to null hypothesis being accepted. Thus null hypothesis was accepted. The same applied to the t test where the critical t is supposed to be between -1.96 to + 1.96 to accept the null hypothesis. The t value was -.442 hence accepting the null hypothesis. Thus the study concluded earnings announcement did not have significant effect on stock prices in year 2016. The findings were in line with Kiremu et al. (2013) but contrasting to Grace et al. (2013).

Conclusions and Recommendations

The results indicated that earnings have signaling information which influence share prices in the event period. Significance t-test for average abnormal returns indicated that they were not significant for year 2012, 2013, 2014 and 2016 which shows the market was efficient in semi-strong form efficiency in those years. However, the average abnormal returns were found to be significant at 5% significance level in year 2015 which indicated the market was inefficient in semi-strong form with regard to earnings announcements during the period perhaps due to the prevailing economic conditions which were not favorable.

The study recommends regulatory bodies to create laws that deter mismanaging of events announcements, insider trading, creative accounting among other malpractices so as to enhance efficiency at NSE. Infrastructure for communication should also be enhanced to ensure public participation in the market and better flow of information to different investors to avoid irrational investors due to lack of information which is public. Future researchers are recommended to study joint events on how they influence share prices. Further studies are required to differentiate how increases or decreases in earnings announcements influence share prices separately from previous years. Further tests on events such as elections, death of CEO should also be investigated.

One of the limitations is the choice of announcement date for earnings. This is due to the fact that managers can announce in different platforms such as news conferences, annual general



meetings and newspapers. This was circumvented by using the dates on notice of shares dealings when the companies' year ends as they prepare their final accounts.

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Appendix 1

Appendix 1													
	Qualified Earnin	gs Announ	cements										
		criteria 1	Paid in all	5 years									
		criteria 2	Traded fo	r period gr	eater than	6 months							
		criteria 3	No conter	nporaneοι	us announc	ement							
		criteria 4	No data ga	aps									
		2012	2013	2014	2015	2016	criteria 1	criteria 2	criteria 3	criteria 4			
	company	earnings o	late										
1	Eaagads Ltd				31.3.2015		pass	pass	pass	pass		pass	
2	Kapchorua Tea Co. Ltd	31.3.2012	31.3.2013	31.3.2014	31.3.2015	31.3.2016	pass	pass	pass	pass		pass	
3	Kakuzi	31.3.2012	31.3.2013	31.3.2014	31.3.2015	31.3.2016	pass	pass	pass	pass		pass	
4	Limuru Tea Co. Ltd				31.3.2015		pass	pass	pass	pass		pass	
5	Rea Vipingo Plantations Lt						pass	pass	pass	pass		pass	
6				31.3.2014			pass	pass	pass	pass		pass	
7	Williamson Tea Kenya Ltd	31.3.2012	31.3.2013	31.3.2014	31.3.2015	31.3.2016	pass	pass	pass	pass		pass	
8	Car and General (K) Ltd	31.3.2012			31.3.2015		pass	pass	pass	pass		pass	
9	Sameer Africa Ltd			31.3.2014	31.3.2015		pass	pass	pass	pass		pass	
	Marshalls (E.A.) Ltd		31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
	CMC Holdings Ltd			31.3.2014		31.3.2016	pass	pass	pass	pass		pass	
	Barclays Bank Ltd		31.3.2013			31.3.2016	pass	pass	pass	pass		pass	
	CFC Stanbic Holdings Ltd		31.3.2013			31.3.2016	pass	pass	pass	pass		pass	
	Diamond Trust Bank Kenya		31.3.2013			31.3.2016	pass	pass	pass	pass		pass	
	Housing Finance Co Ltd		31.12.2013		31.12.2015		pass	pass	pass	pass		pass	
	Kenya Commercial Bank L	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
	National Bank of Kenya Lt	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
	NIC Bank Ltd	31.12.12	31.12.2013	31.12.2014	31.12.2015		pass	pass	pass	pass		pass	
	Standard Chartered Bank L	31.12.12	31.12.2013		31.12.2019		pass	pass	pass	pass		pass	
	Equity Bank Ltd	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
	The Co-operative Bank of I	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
	Express Ltd	31.12.12	31.12.2013	31.12.2014	31.12.2015		fail	pass	pass	fail		fail	
	Kenya Airways Ltd	31.3.12	31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass	-	pass	-
	Nation Media Group	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
	Standard Group Ltd	31.3.12	31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass		pass	
	TPS Eastern Africa (Seren	31.3.12	31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass		pass	-
	Scangroup Ltd	31.3.12	31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass		pass	-
	Uchumi Supermarket Ltd	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
29	Athi River Mining Bamburi Cement Ltd	31.3.12	31.3.2013	31.3.2014 31.3.2014		31.3.2016	pass	pass	pass	pass	-	pass	
31		31.3.12 31.3.12	31.3.2013 31.3.2013	31.3.2014		31.3.2016 31.3.2016	pass pass	pass pass	pass	pass pass		pass	
	E.A.Cables Ltd	31.3.12	31.3.2013		31.3.2015		pass	pass	pass pass	pass		pass pass	
	E.A.Portland Cement Ltd	31.3.12	31.3.2013			31.3.2016	pass	pass	pass	pass		pass	
	KenolKobil Ltd	31.3.12	31.3.2013			31.3.2016	pass	pass	pass	pass		pass	
	Total Kenya Ltd	31.3.12	31.3.2013			31.3.2016	pass	pass	pass	pass		pass	
	KenGen Ltd	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	i e
	Kenya Power and Lighting		31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass		pass	
	Jubilee Holdings Ltd	31.3.12			31.3.2015			pass	pass	pass		pass	
	Pan Africa Insurance Holdi				31.3.2015			pass	pass	pass		pass	
		31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
		31.3.12	31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass		pass	
	CIC Insurance Group Ltd	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
	Olympia Capital Holdings It		31.2.2013		31.2.2015		pass	pass	pass	pass		pass	
	Centum Investment Co Ltd		31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
	Trans-Century Ltd	31.3.12			31.3.2015		pass	pass	pass	pass		pass	
	City Trust Ltd	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		fail	
	B.O.C Kenya Ltd	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
		31.3.12	31.3.2013	31.3.2014	31.3.2015		pass	pass	pass	pass		pass	
	Carbacid Investments Ltd	31.3.12	31.3.2013		31.3.2015		pass	pass	pass	pass		pass	
	East African Breweries Ltd		31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass		pass	
	Mumias Sugar Co. Ltd	31.3.12	31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass		pass	
	Unga Group Ltd	31.3.12	31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass		pass	
	Kenya Orchards Ltd		31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass		pass	
	A.Baumann CO Ltd	31.3.2012	31.3.2013	31.3.2014		31.3.2016	pass	pass	pass	pass		fail	
	Safaricom Ltd Ord	31.3.12	31.3.2013	31.3.2014	31.3.2015	31.3.2016	pass	pass	pass	pass		pass	
	Accesskenya Group Ltd	31.3.12	31.3.2013	31.3.2014	31.3.2015	31.3.2016	pass	pass	pass	pass		fail	
	Hutchings Biemer Ltd	31.3.12	31.3.2013	31.3.2014	31.3.2015	31.3.2016	pass	pass	pass	pass		fail	
				_							_		