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Title

**AN EVENT STUDY ANALYSIS TO EVALUATE
THE EFFICIENCY OF STOCK MARKET WITH
RESPECT TO DIVIDEND ANNOUNCEMENTS IN
PUBLIC (SBI BANK & PNB BANK) AND PRIVATE
(HDFC BANK & ICICI BANK) BANKING
COMPANIES**

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ABSTRACT:

The Efficient Market Hypothesis (EMH) provides that security prices reflect all available information. The market price of a security is its price on the Stock Exchange's trading market. The speed with which the market reacts to new knowledge about the company is a measure of the efficiency of its pricing process. This process is likely to be enhanced if market participants have unimpeded and costless access to all relevant information about the company's prospects and if high transaction costs do not constitute barriers to trading on the stock exchange.

The purpose of the study was to ascertain whether there was an instantaneous reaction of the companies' share prices to dividend announcement in order to provide the basis for confirming or dispelling the EMH conclusions as far as the National Stock Exchange was concerned. The event study methodology was used to achieve the research objective. Additionally T-Test was employed in testing the null hypothesis. The major finding was that the NSE was a semi-strong efficient market resulting in the conclusion that the time of announcement can be used for the making easy money but is very rare to find that on which date company will announce the dividend and if investor are able to predict this than in that case easy money can be made with the help of that information.

Key words: Event study, Dividend announcements, Stock prices, Banking companies

INTRODUCTION:

Stock market efficiency has been a popular topic for teaching and empirical studies. The efficient market is one in which prices fully reflect available information. The chief corollary of the idea that markets are efficient and that prices fully reflect all available information is that price movements do not follow trends or patterns. One implication of an efficient market is that no abnormal returns can be made from this information because current prices already reflect the information. Therefore, abnormal returns (if any) should not be statistically significant from zero.

Investors care about market efficiency because stock price movements affect their wealth. More generally, stock market inefficiency may affect consumption and investment spending and therefore influence the overall performance of the economy. Market efficiency depends on the ability of traders to devote time and resources to gathering and disseminating information. Markets that are more efficient attract more investors, which translate into increased market liquidity.

A market is efficient with respect to publicly available information if it is impossible to make an economic profit by trading on the basis of the information set. When a firm initiates the payment of a cash dividend or omits such a payment, the firm is making an extremely visible and qualitative change in corporate policy. The decision may have short- and long-term effects on the performance of the price and volume of the company's shares. Therefore the purpose of this study is to investigate information effect on stock exchange. The results of this study have important implications for investors, financial institutions and financial managers interested in stock markets.

LITERATURE REVIEW:

Fama (1965a) studied the proportionate daily price change of the thirty shares comprising the Dow Jones industrial average between 1957 and 1962. He found that there was no significant serial correlation (relationship over time) among the price changes. *Robert Faff (1997)* in his study examines share price reaction to the announcement of dividend for a sample of Australian companies over the period 1992 to 2000. The risk-adjusted price reaction from day 0 to day 1 is positive and statistically significant, averaging 2.37%. However, abnormal price reaction to dividend issue announcements is statistically significantly stronger for industrial nonfinancial companies and mining companies than financial companies. *Sweta (2003)*, This paper examines the effects of these two types of events for the Indian stock market. We use the event study methodologies. The abnormal returns are calculated using the Capital Asset Pricing Model and then t-tests are conducted to test the significance. For dividend issues, the abnormal returns were about 1.8% and for stock splits, it was about 0.8%. On a whole, the paper finds evidence of semi-strong form efficiency in the Indian stock market. *Narayan rao (1999)*, in his paper investigates the operating performance behavior around dividend distribution for a large sample of firms listed on Bombay Stock Exchange (BSE) to examine the relevance of signaling hypothesis in India. The operating performance of firms issuing dividend shares is superior to their industry peers both prior to and subsequent to the dividend issue. *Brennan and Hughes (2007)* studies show that dividend announcement is followed by unexpected increases in earnings from the stock. This finding is explained by the informational asymmetry which exists between managers and investors. The main idea is that managers issue bonus stock to signal good information about the future prospects of their company and bonus reduce the informational asymmetry between them and the

investors. A common finding about dividend is that abnormal equity appreciation precedes stock splits. In most of the studies, the information that the firm will maintain its' new level of performance is argued to be the signal conveyed by the announcement of a bonus stock. *Vermaelen (1981)* confirms these findings and argues that the main reason for dividend is to provide positive information about future earnings to the market. This is consistent with the signaling hypothesis because the valuation effects are more pronounced for tender offers than for open market repurchases. Furthermore, it appears that firms usually set the offer price at a premium above the value of the signaled information. Consequently, the post-expiration price falls below the pre-expiration price but stays above the pre-announcement price.

OBJECTIVES:

1. To find out whether dividend announcement has any relation with the share market price.
2. To know the fluctuating price of the selected companies during pre and post dividend announcement.
3. To test whether the semi –strong form of efficient market hypothesis holds in the Indian stock market.
4. To examine whether investors purchase or sell the shares on the basis of dividend announcements.

THEORETICAL FRAMEWORK:

Construct: Information effect on NSE stock exchange

Variables:

- Dependent Variable – Market Price
- Independent Variable- Declared Dividend
- Moderating Variable - NSE Stock exchange

RESEARCH DESIGN:

The purpose of this study is descriptive. A descriptive study is undertaken in order to be able to describe the characteristics of variables of interest in a situation. In this type of research the

researcher has no control over the variables; he can only report what has happened or what is happening

SAMPLING AND SAMPLING DESIGN:

Sample:

Shares of top 4 banks according to their market capitalization listed on NSE STOCK EXCHANGE have been selected on random basis. These banks have made announcement of dividend during the period selected. Banks that have any price sensitive information during the event window (-30 days to +30 days) are eliminated.

Data:

We have used three sets of data in this study. The first set of data consists of information announcement made by the sample companies. This includes the dates on which the Board of Directors meets and approves and announces the related information of the company. The second set of data consists of daily-adjusted closing prices of the stocks selected for the study at the National Stock Exchange for the period covered by this study. Daily-adjusted closing prices are used in the study as these are assumed to reflect the consensus of the market participants regarding price of the stock at the end of the trading. The third set consists of the CNX S&P NIFTY index of ordinary share prices compiled and published by the National Stock Exchange on daily basis. Data is collected from NSE website.

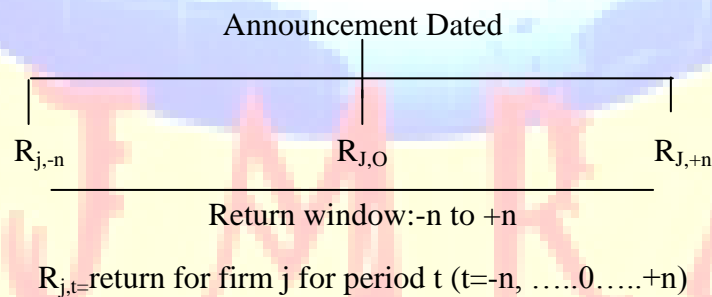
Sampling procedure:

The sampling design used is **Probability Sampling (Simple Random Sampling Without Replacement)**. The use of this sampling design is due to the fact that it follows the **Principle of Statistical Regularity** which states that if on an average, the sample chosen is a random one, the sample will have the same composition and characteristics as that of the universe. Moreover, with probability sampling, we can measure the errors of estimation which brings out the superiority of random sampling design over the other ones.

Analytical tools: Event Study technique is used.

Event Study

1. The main methodology for this study was event studies. According to Bodie, et al, (1999), an event study describes a technique of empirical financial research that enables an observer to assess the impact of a particular event on a firm’s stock price. An event study would quantify the relationship between firm-specific event, like dividend announcement and stock returns. The key steps involved in an event study are as follows:
2. Identify the event to be studied and pinpoint the date on which the event specified with a fair degree of precision .Because financial markets react to the announcement of an event , rather than the event itself , and event studies focus on the announcement date of the event.
3. Collect returns data around the announcement date-In this context two issues have to be reso:What should be the period for calculating returns-weekly ,daily, or some other interval ?For how many periods should returns be calculated before and after the announcement date?



4. Calculate the excess returns, by period ,around the announcement date for each firm in the sample. The excess return is calculated by making adjustment for market performance and risk .For example, if the capital asset pricing modal is employed to control for risk the excess return is calculated as:

$$E R_{jt} = R_{jt} - \text{Beta}_j * R_{mt}$$

Where $E R_{jt}$ is the excess return on firm j for period t , Beta_j is the beta for firm j , R_{mt} is the excess returns on market for period t .

5. Compute the average return and the standard error of excess returns across all firms. The average excess return is

$$\overline{ER}_t = \frac{\sum_{j=1}^m ER_{jt}}{m}$$

Where ER_t is the average excess return for period t , ER_{jt} is the excess return for j th firm for period t , m is the excess number of firms in the event study. The standard error of the excess return is the number of firms in the event study.

6. Assess whether the excess returns around the announcement date are different from zero. To determine whether the excess returns around the announcement data are different from zero, estimate the T statistic for each day:

$$T \text{ statistic for excess return on day } t = \frac{\overline{ER}_t}{\text{Standard Error}}$$

Statistically significant T statistics imply that the event has a bearing on returns; the sign of the excess return indicates whether the effect is positive or not.

In this two-stage approach is used to test the stock price responses to announcements. The first stage consists of estimation of parameter like beta based on the ex-post returns on stocks and market index, and expected returns on each of the stocks based on the market model. In the second stage these estimated parameters are used to calculate abnormal returns around the event day. In this study, the date of announcement is defined as day 0 or event day. If event day is a non-trading day then the immediately following trading day is considered as an event day. Pre-announcement period includes 30 trading days prior to the announcement date, i.e., days -30 to -1. Post announcement period includes 30 trading days after the announcement i.e., days +1 to +30. Thus, we have taken the event window of 61 trading days (including day 0 as the event day). The estimated abnormal returns are averaged across securities to calculate average abnormal returns (AARs) and average abnormal returns are then cumulated over time in order to ascertain cumulative average abnormal returns (CAARs). In this paper the market model to measure the returns of stock that is related to market movement is used. Market model was developed and suggested by Sharpe.

Market model can be expressed mathematically as:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} + e_{it} \text{ for } i = 1 \dots N$$

Where, $E(R_{it})$ = Expected return on security 'i' during time period 't'; α_i = Intercept of a straight - line or alpha coefficient of i th security; β_i = Slope of a straight - line or beta coefficient of i th security; R_{mt} =

Expected return on index (CNX S&P NIFTY Index in this study) during period 't'; e_{it} = Error term with a mean zero and a standard deviation which is a constant during time period 't'.

Paper used raw returns. For the values of α_i a proxy of 6% per annum interest on treasury bills is used and for β_i values are estimated by using the formula that is described in this paper. Therefore, the following simplified model of regression is used for estimating the returns on each security by taking the actual returns on market, R_{mt} .

$$\text{Expected Return} = E(R_{it}) = \alpha_i + \beta_i R_{mt}$$

The abnormal returns are computed using the following model:

$$AR_{it} = e_{it} = R_{it} - E(R_{it}) \quad \text{Where, } R_{it} = \text{Actual Returns}$$

The abnormal returns of individual security are averaged for each day surrounding the event day i.e., 30 days before and 31 days after the event day. The AAR is the average deviation of actual returns of a security from the expected returns. The following model is used for computing the average abnormal returns (AARs) :

$$AAR_{it} = \frac{\sum_{i=1}^N AR_{it}}{N} \quad \text{Where, } i = \text{the number of securities in the study; } N = \text{total number of securities in the portfolio. } t = \text{the days surrounding the event-day}$$

Since the security's overall reaction to the dividend announcement or the event will not be captured instantaneously in the behavior of average abnormal return for one specific day, it is necessary to accumulate the abnormal returns over a long period. It gives an idea about average stock price behavior over time. Generally, if market is efficient, the CAAR should be close to zero. The model used to ascertain CAAR is:

$$CAAR_t = \sum_{t=-30}^k AAR_{it} \quad \text{Where } t = -30, \dots, 0, \dots, +30.$$

Beta is calculated using following equation:

$$\beta_i = \frac{N \sum_{t=1}^N R_{mt} R_{it} - \left(\sum_{t=1}^N R_{mt} \right) \left(\sum_{t=1}^N R_{it} \right)}{N \left(\sum_{t=1}^N R_{mt}^2 \right) - \left(\sum_{t=1}^N R_{mt} \right)^2}$$

Where,

β_i = Slope of a straight line or beta coefficient of security 'i'

N = Number of observations

R_{mt} = Return on market index 'm' during time period 't'

R_{it} = Return on security 'i' during time period 't'

Statistical TOOLS USED:-

- 1 T- STATISTIC (IN PORTFOLIO)
- 2 Beta
- 3 CAR

Paired-Sample T Test

The Paired-Samples T Test procedure compares the means of two variables for a single group. The procedure computes the differences between values of the two variables for each case and tests whether the average differs from 0.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE_ANN	4.0300	30	2.28348	.41690
	POS_ANN	1.0755	30	2.79465	.51023

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	PRE_ANN & POS_ANN	30	-.017	.929

Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PRE_ANN - POS_ANN	2.95450	3.63867	.66433	1.59580	4.31321	4.447	29	.000

Interpretation:

A paired ‘ t ’ test, to examine if the means of the total Abnormal Returns are significantly different between the two pairs of windows considered, and a ‘ One Way ANOVA ’ test, to examine if the total Abnormal Returns are significantly different between the two pairs of windows considered, has been done. The two windows considered are: **first** being pre announcement window and the **second** being the post-announcement window.

The value of the T-statistic is 4.447 which is greater than the value at 5% confidence at 8 degree of freedom so our null hypothesis is rejected and alternate hypothesis is accepted that is an investor can earn return in pre-announcement period and post – announcement period .

Parametric Significance Test:

The cumulative average abnormal return provides information about the average price behavior of securities during the event window. If markets are efficient, the AARs and CAARs should be close to zero. Parametric test’ is used to assess significance of AARs. The 5% level of significance with appropriate degree of freedom was used to test the null hypothesis of no significant abnormal returns after the event day. The conclusions are based on the results of *t* values on AARs for the event window. The *t* test statistics for AAR for each day during the event window is calculated as:

$$t = \frac{AAR}{\sigma(AAR)}$$

Where,

AAR = Average abnormal return

$\sigma(AAR)$ = Standard error of average abnormal return

The standard error is calculated by using the following formula:

$$S.E = \frac{\sigma}{\sqrt{n}}$$

Average return of 4 selected banks of **dividend** around event window

Days	1	2	3	4
-30	4.26247	7.79059	22.5863	2.87732
-29	5.02107	9.52330	12.2791	0.84044
-28	1.16229	4.35299	4.35354	0.04166
-27	6.37525	2.47766	-2.1638	0.36553
-26	14.6238	-3.359	-7.0412	0.29532
-25	22.7547	-5.3814	-16.086	-1.2268
-24	25.4959	0.2735	-2.7984	-0.4908
-23	16.4895	-0.1610	4.62186	0.37493
-22	19.5123	-4.9473	1.45686	1.21777
-21	22.4243	-0.4399	3.75651	0.27290
-20	11.0573	-0.2281	0.02435	2.49107
-19	9.35703	-4.6117	-3.3400	6.87603
-18	2.36838	-5.3588	16.7449	9.31105
-17	3.05612	-1.7769	10.2303	13.2344
-16	-9.1995	0.51755	10.1517	11.4086
-15	1.566	5.47831	12.9497	5.64494
-14	1.16300	2.78370	2.21998	9.61965
-13	-3.7672	2.00410	-6.6955	5.51894
-12	-8.4315	2.19241	3.19995	1.33195
-11	-1.2009	-2.4988	-2.9409	0.59649
-10	7.23522	-3.2505	-4.0732	-3.8562
-9	19.2083	1.01726	-5.1314	-1.6139
-8	15.5791	-4.7716	14.576	-2.1823
-7	20.7792	-6.7426	37.051	-2.4008
-6	24.6296	3.46585	39.179	-1.2492
-5	13.1558	10.0348	29.525	-0.0245
-4	5.97107	8.03273	14.234	-2.9923
-3	3.07078	10.2761	10.222	-1.3660
-2	2.59066	11.7815	-10.629	0.58733
-1	10.0482	0.24185	-8.8148	1.27100

0	11.3464	-9.1954	-5.9656	2.45861
1	19.7885	-15.123	-4.6927	2.70604
2	20.9877	-15.153	7.3790	2.4457
3	21.7355	-20.069	5.1904	2.22228
4	27.5579	-19.648	9.7826	2.91388
5	26.5342	-14.646	15.122	2.70917
6	28.9896	-8.7759	12.342	4.05709
7	28.0976	3.4787	1.9742	1.85798
8	28.5179	7.4331	-3.2526	1.47927
9	28.2508	2.6365	0.6506	-0.8969
10	27.5384	3.3090	-6.8683	-0.9377
11	27.6298	1.7823	-3.3527	-0.9042
12	27.9392	3.7572	-6.058	0.6664
13	27.6998	1.9509	-5.6374	0.3901
14	14.1855	3.7529	-8.1666	-0.5580
15	13.7142	1.4178	-5.1007	-1.1172
16	9.39250	-2.5224	-0.2466	-3.7931
17	5.93068	-11.864	-2.4935	-2.2551
18	5.29723	-9.0633	8.6737	-3.4475
19	8.60360	-7.2547	4.2590	-3.2699
20	12.3218	-9.1177	-5.5572	-2.1198
21	3.96921	-3.6918	-6.412	1.0003
22	-3.40268	-2.1173	-12.101	-1.0040
23	-7.64937	-0.5620	-17.687	1.1754
24	-10.0328	3.7599	-13.100	3.4374
25	-14.1127	6.5794	-13.970	3.5586
26	-4.78876	6.4674	-2.2958	1.5908
27	-3.58893	4.4654	-5.0390	1.7882
28	-1.17306	1.6948	-2.2822	1.4045
29	2.77791	-0.0852	-7.5886	0.0229
30	6.057329	-1.9569	-7.7566	-0.3432

(Source: National Stock Exchange)

Table clearly shows that investors can earn abnormal returns by trading in the stocks after the dividend announcements. A lesser (close to zero) positive incidence of abnormal return was noticed around 2 days pre/post announcement for each company having positive dividend announcement and few days pre/post negative returns for those companies having negative dividend announcement. This rejects the first null hypothesis that the investors cannot earn abnormal returns by trading in the stocks after the dividend announcements

Table 3: Average Abnormal returns, Cumulative Average Abnormal returns & t-values of portfolio

Days	AAR	CAAR	T	Days	AAR	CAAR	T
-30	4.782419	4.782419	1.35627	0	7.480561	128.3796	1.964398
-29	4.310167	9.092587	1.358839	1	7.263059	135.6427	1.781027
-28	5.609004	14.70159	1.795748	2	3.718578	139.3612	1.233641
-27	4.708542	19.41013	1.462927	3	1.216597	140.5778	0.496356
-26	4.482845	23.89298	1.221388	4	-1.5731	139.0047	-0.7008
-25	6.250473	30.14345	1.606261	5	-3.83081	135.1739	-2.5897
-24	5.305062	35.44851	1.371349	6	-4.28842	130.8855	-2.18827
-23	4.11369	39.5622	1.138234	7	-3.72706	127.1584	-1.71323
-22	6.004281	45.56648	1.732594	8	0.164829	127.3233	0.060196
-21	4.828095	50.39458	1.918318	9	1.722945	129.0462	0.497148
-20	4.792122	55.1867	2.624842	10	-0.67377	128.3724	-0.28729
-19	4.53731	59.72401	2.318635	11	0.866219	129.2387	0.767743
-18	2.319071	62.04308	1.208043	12	-0.5801	128.6586	-0.51163
-17	5.181056	67.22414	1.746528	13	-2.30156	126.357	-1.7367
-16	5.625634	72.84977	1.655249	14	-1.36082	124.9962	-0.83592
-15	4.645669	77.49544	1.521133	15	-1.90776	123.0884	-1.33793
-14	3.814077	81.30952	1.206761	16	1.388436	124.4769	0.873802
-13	2.791362	84.10088	1.18737	17	0.36275	124.8396	0.260826
-12	-0.76141	83.33947	-0.50893	18	1.933759	126.7734	1.071582
-11	-1.40893	81.93054	-1.2002	19	0.616567	127.3899	0.329325
-10	-1.19984	80.73071	-0.66181	20	0.928993	128.3189	0.56233
-9	-1.38054	79.35017	-0.81895	21	2.113723	130.4326	0.967105
-8	4.614548	83.96472	1.82564	22	2.149456	132.5821	1.011024

-7	5.110704	89.07542	1.693343	23	1.034288	133.6164	0.665773
-6	6.031553	95.10697	1.675786	24	2.794504	136.4109	2.027005
-5	5.60791	100.7149	1.580983	25	3.593594	140.0045	1.475934
-4	3.571075	104.286	1.261346	26	5.859245	145.8637	1.24766
-3	4.725537	109.0115	1.742679	27	3.256541	149.1203	0.968077
-2	5.070262	114.0818	1.975698	28	3.40325	152.5235	1.212246
-1	6.817283	120.899	1.869097	29	4.755195	157.2787	1.816474
0	7.480561	128.3796	1.964398	30	3.364849	160.6436	1.732358

(Source: National Stock Exchange)

PATTERNS OF AAR:

The behaviour of abnormal Returns (AAR) around the merger announcement, as shown in table offers some interesting readings. A lesser positive incidence of average abnormal return was noticed around 2 days pre/post announcement for the portfolio. Though the positive incidence of average Abnormal returns in the post announcement period reflects investor's confidence in the stock performance and this also rejects the first part of second null hypothesis that the average abnormal returns are close to zero, yet these results further reendorsed the informational efficiency of the stock market. The t-test value on AAR for portfolio shows that for all the days during the event window they are insignificant at 5% level. This proves the third null hypothesis that average abnormal returns occur randomly. Hence the t-values on AARs indicate that totally accepts the existence of abnormal returns around the event days (pre/post). This provides an opportunity to beat the market and to earn abnormal returns. However this incidence could not be considered statistically significant enough to validate market efficiency.

PATTERNS OF CAAR:

The results reported in table reveals that the cumulative average abnormal returns have a rising tendency in the post event period. A higher negative incidence of cumulative return in the post event phase window for few days reflects over expectation and irrational to the new information disclosure concerning merger. This rejects the second part of second null hypothesis that the

Cumulative average abnormal returns are close to zero. However the magnitude of overreaction was not considered significant to invalidate stock market efficiency².

Average Abnormal returns, Cumulative Average Abnormal returns & t-values of portfolio

Pre-announcement

Post-announcement

Days	AAR	CAAR	T	Days	AAR	CAAR	T
-30	5.038152	5.038152	2.079594	0	-0.7192	76.43795	-0.33842
-29	3.72106	8.759212	1.84422	1	0.388867	76.82682	0.126792
-28	1.62753	10.38674	1.113559	2	1.639761	78.46658	0.50927
-27	1.064005	11.45075	0.686089	3	1.346559	79.81314	0.363383
-26	0.662543	12.11329	0.286846	4	2.892549	82.70569	0.712831
-25	0.450574	12.56386	0.126426	5	3.654693	86.36038	0.961501
-24	2.899901	15.46377	0.971143	6	4.651218	91.0116	1.299831
-23	2.62514	18.0889	1.346799	7	3.902263	94.91386	1.223636
-22	1.98717	20.07608	0.794932	8	4.101322	99.01518	1.28659
-21	3.819338	23.89541	1.530028	9	4.51559	103.5308	1.497193
-20	1.710666	25.60608	1.144332	10	3.222863	106.7536	0.957599
-19	1.341487	26.94757	0.852719	11	3.934596	110.6882	1.217984
-18	3.980495	30.92806	1.883487	12	4.44406	115.1323	1.356245
-17	4.245044	35.1731	2.625814	13	3.322248	118.4545	1.023829
-16	2.6237	37.7968	1.32215	14	1.365112	119.8197	0.630481
-15	4.084898	41.8817	3.152349	15	0.799558	120.6192	0.423174
-14	3.0539	44.9356	2.945323	16	0.391075	121.0103	0.2982
-13	0.977298	45.9129	0.657543	17	-1.7666	119.2437	-1.12675
-12	0.752314	46.66521	0.587926	18	0.171481	119.4152	0.098678

-11	0.44633	47.11154	0.444671	19	0.213178	119.6283	0.136302
-10	-0.05736	47.05419	-0.03791	20	-0.27418	119.3542	-0.13397
-9	2.129807	49.184	0.877279	21	-0.42718	118.927	-0.38887
-8	3.098798	52.28279	1.225227	22	-0.64914	118.2779	-0.35785
-7	5.737302	58.0201	1.197326	23	-0.85802	117.4198	-0.32771
-6	7.448331	65.46843	1.524764	24	-0.81982	116.6	-0.35916
-5	6.624618	72.09304	1.9768	25	0.040912	116.6409	0.014445
-4	3.388911	75.48196	1.798231	26	1.898008	118.5389	1.46538
-3	1.531773	77.01373	0.82613	27	1.329396	119.8683	1.172518
-2	-0.07766	76.93607	-0.03931	28	1.427372	121.2957	2.144381
-1	0.221077	77.15715	0.121493	29	1.350089	122.6458	1.024166
0	-0.7192	76.43795	-0.33842	30	-0.07159	122.5742	-0.05706

(Source: National Stock Exchange)

Patterns of AAR:

The behavior of abnormal Returns (AAR) around the dividend announcement, as shown in table offers some interesting readings. A lesser positive incidence of average abnormal return was noticed around 2 days pre/post announcement for the portfolio. Though the positive incidence of average Abnormal returns in the post announcement period reflects investor's confidence in the stock performance and this also rejects the first part of second null hypothesis that the average abnormal returns are close to zero, yet these results further reendorsed the informational efficiency of the stock market. The t-test value on AAR for portfolio shows that for all the days during the event window they are insignificant at 5% level. This proves the third null hypothesis that average abnormal returns occur randomly. Hence the t-values on AARs indicate that totally accepts the existence of abnormal returns around the event days (pre/post). This provides an opportunity to beat the market and to earn abnormal returns. However this incidence could not be considered statistically significant enough to validate market efficiency.

Patterns of CAAR:

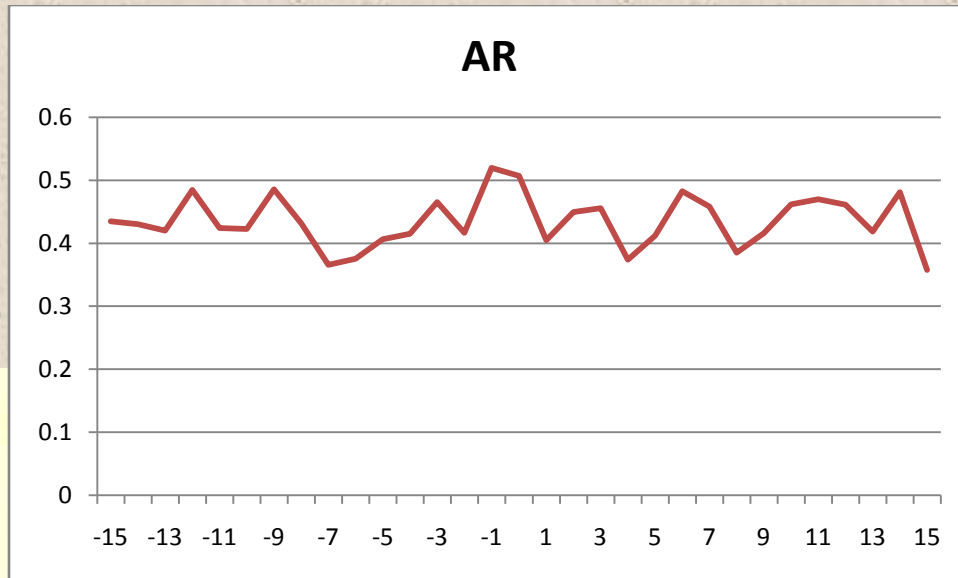
The results reported in table reveals that the cumulative average abnormal returns have a rising tendency in the post event period. A higher negative incidence of cumulative return in the post event phase window for few days reflects over expectation and irrational to the new information disclosure concerning annual dividend. This rejects the second part of second null hypothesis that the Cumulative average abnormal returns are close to zero. However the magnitude of overreaction was not considered significant to invalidate stock market efficiency¹⁷.

State Bank of India

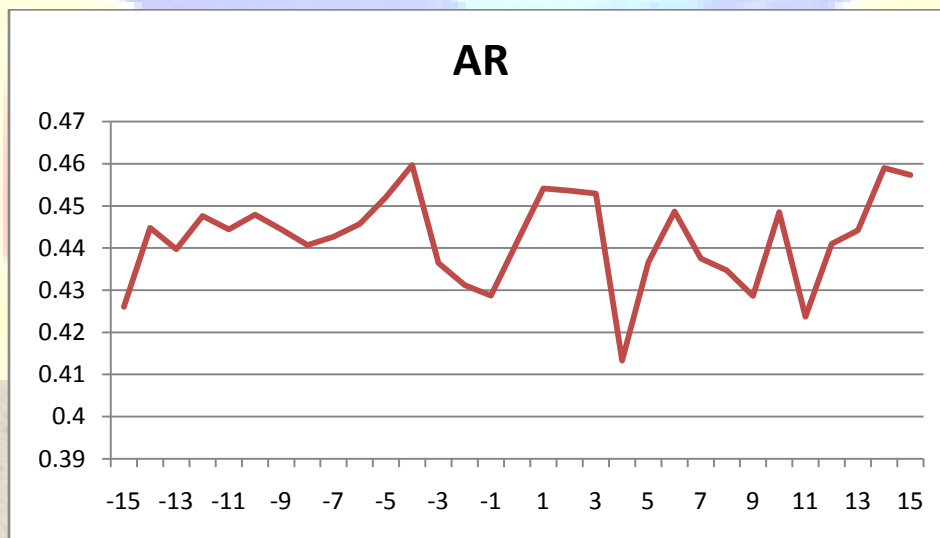
Days	R	Rm	rm2	RRm	Beta	ER	AR	CAR
-30	27.6	-2.85186	8.13307841	-78.7112	0.9366	-2.64705	30.24705	30.24705
-29	27.6	3.869924	14.9763154	106.8099		3.648571	23.95143	54.19848
-28	27.6	1.428099	2.03946818	39.41555		1.361558	26.23844	80.43692
-27	27.6	2.578448	6.64839654	71.16518		2.438975	25.16103	105.5979
-26	27.61	1.820036	3.31253271	50.25121		1.728646	25.88135	131.4793
-25	27.6	-0.10269	0.01054543	-2.83427		-0.07218	27.67218	159.1515
-24	27.61	0.120019	0.01440455	3.313723		0.13641	27.47359	186.6251
-23	27.61	0.967064	0.93521263	26.70063		0.929752	26.68025	213.3053
-22	27.61	0.311636	0.09711696	8.604268		0.315878	27.29412	240.5994
-21	15.46	-3.42301	11.7169777	-52.9197		-3.18199	18.64199	259.2414
-20	12.74	2.732805	7.46822327	34.81594		2.583545	10.15645	269.3979
-19	8.56	2.344669	5.49747478	20.07037		2.220017	6.339983	275.7379
-18	6.08	-0.34306	0.11768979	-2.0858		-0.29731	6.377309	282.1152
-17	5.74	-1.14636	1.31414294	-6.58011		-1.04968	6.789681	288.9049
-16	9.42	-2.16916	4.70524259	-20.4335		-2.00763	11.42763	300.3325
-15	12.06	0.782411	0.61216688	9.435876		0.756806	11.30319	311.6357
-14	5.3	-3.57728	12.7969601	-18.9596		-3.32648	8.626484	320.2622
-13	-2.5	-2.40537	5.78580996	6.013428		-2.22887	-0.27113	319.991
-12	-8.16	1.463544	2.14196069	-11.9425		1.394755	-9.55476	310.4363
-11	-9.35	-1.80351	3.25265269	16.86283		-1.66517	-7.68483	302.7514
-10	-14.19	0.277408	0.07695544	-3.93643		0.283821	-14.4738	288.2776
-9	-5.16	1.081953	1.17062124	-5.58287		1.037357	-6.19736	282.0803
-8	-3.13	-1.1906	1.41753317	3.726584		-1.09112	-2.03888	280.0414
-7	-2.3	3.150668	9.92671001	-7.24654		2.974916	-5.27492	274.7665
-6	2.67	0.36111	0.13040027	0.964163		0.362215	2.307785	277.0743
-5	6.91	-2.26847	5.14594062	-15.6751		-2.10065	9.010646	286.0849
-4	1.31	1.159805	1.34514765	1.519345		1.110273	0.199727	286.2846

-3	7.75	0.190183	0.0361694	1.473915		0.202125	7.547875	293.8325
-2	7.19	1.733542	3.00516776	12.46417		1.647635	5.542365	299.3749
-1	1.48	-5.74703	33.0283011	-8.5056		-5.35866	6.838664	306.2135
0	-3.36	0.875782	0.76699402	-2.94263		0.844257	-4.20426	302.0093
1	-6.69	-2.93347	8.60526397	19.62493		-2.72349	-3.96651	298.0428
2	-10.67	0.065276	0.00426092	-0.69649		0.085137	-10.7551	287.2876
3	-9.7	-1.88839	3.56601638	18.31738		-1.74467	-7.95533	279.3323
4	-8.4	-0.6754	0.45615942	5.673324		-0.60858	-7.79142	271.5409
5	-0.17	3.46851	12.0305641	-0.58965		3.272607	-3.44261	268.0983
6	5.49	2.970546	8.824145	16.3083		2.806214	2.683786	270.7821
7	6.32	-0.05004	0.00250352	-0.31622		-0.02286	6.342863	277.1249
8	16.58	3.393202	11.5138181	56.25929		3.202073	13.37793	290.5028
9	27.02	2.909288	8.46395553	78.60896		2.748839	24.27116	314.774
10	12.34	-0.73661	0.54260095	-9.08982		-0.66591	13.00591	327.7799
11	5.14	-1.56846	2.4600802	-8.06191		-1.44502	6.585024	334.3649
12	0.59	2.838449	8.05679167	1.674685		2.682491	-2.09249	332.2724
13	-6.17	1.011538	1.02320906	-6.24119		0.971406	-7.14141	325.131
14	-7.66	0.089171	0.00795153	-0.68305		0.107518	-7.76752	317.3635
15	-2.58	-0.1796	0.03225543	0.463363		-0.14421	-2.43579	314.9277
16	-1.39	-1.10839	1.22853245	1.540665		-1.01412	-0.37588	314.5519
17	-1.02	1.295231	1.67762458	-1.32114		1.237114	-2.25711	312.2947
18	1.46	1.421864	2.02169662	2.075921		1.355718	0.104282	312.399
19	-6.19	1.625563	2.64245437	-10.0622		1.546502	-7.7365	304.6625
20	-5.12	-0.64627	0.41766928	3.30892		-0.5813	-4.5387	300.1238
21	3.59	0.291748	0.08511691	1.047375		0.297251	3.292749	303.4166
22	13.41	-2.31411	5.35511781	-31.0323		-2.1434	15.5534	318.97
23	3.53	-2.26955	5.15086417	-8.01152		-2.10166	5.631662	324.6016
24	2.27	-0.97073	0.94232061	-2.20356		-0.88519	3.155188	327.7568
25	2.76	0.759765	0.57724239	2.096951		0.735596	2.024404	329.7812
26	-0.7	-0.30953	0.09580802	0.21667		-0.2659	-0.4341	329.3471
27	-4	3.309172	10.9506196	-13.2367		3.123371	-7.12337	322.2238
28	0.25	-0.54179	0.29353283	-0.13545		-0.48344	0.733437	322.9572
29	1.43	-4.19544	17.6016778	-5.99947		-3.90544	5.335445	328.2926
30	0.53	1.663613	2.76760881	0.881715		1.58214	-1.05214	327.2405
	335.21	6.94587	265.023775	285.6691				

(Source: National Stock Exchange)

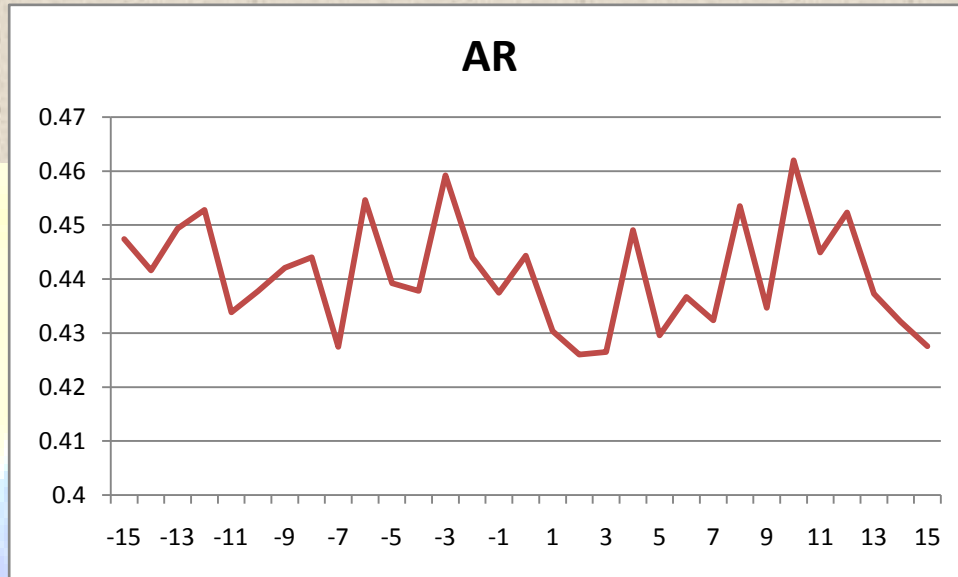


INTERPRETATION:-The above given chart shows the impact of dividend announcement date as on 08 may 2009 which is shown as 0. The Abnormal return of the share is positive and substantial for three days (-1 to +1).The fluctuations in abnormal return during -1 to +1 are very much high these shows that the investors knew about the announcement but there are not that much fluctuations in the abnormal return on day -3 to +3.



INTERPRETATION:-The given figure showing the impact of 0 dividend date as on 5th February 2010 and shows that from -1 date abnormal return of the share has gone up steeply and after the 0 date it remains constant up to +1 and after the +1 date it gone down very sharply

which shows that the investors are well aware about the 0 date and it is also reflecting in the abnormal return chart.



INTERPRETATION:- The above given chart consider the 0 date on 9th June 2010 and it is apparently depicting in the above chart that there are a lot of fluctuations in the abnormal return curve prior and after the dividend date except from date -1 to +1. The abnormal return has not fluctuated that much in that period. And the cumulative abnormal return of the share also as much high as 10.86%.

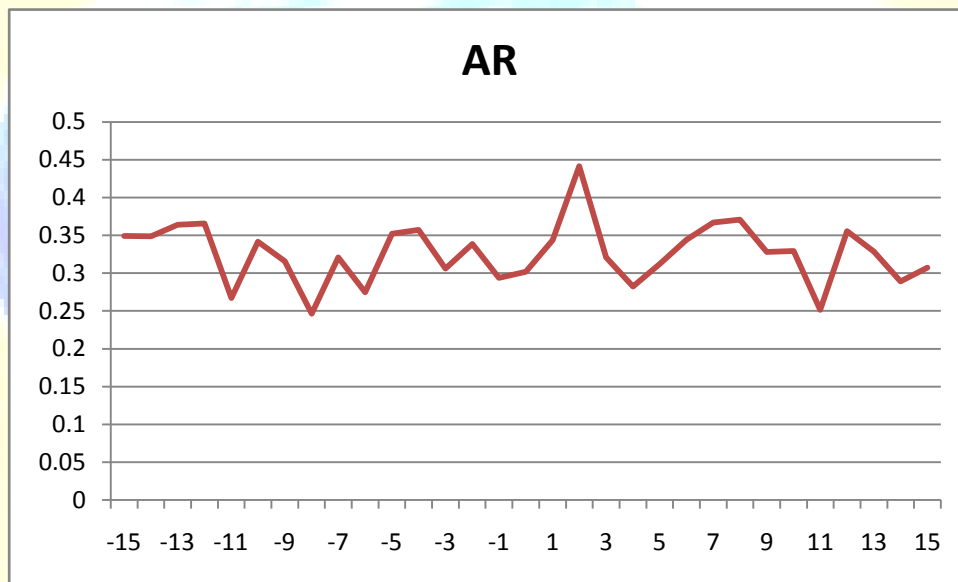
Punjab National Bank

Days	R	Rm	rm2	RRm	Beta	ER	AR	CAR
-30	3.72	0.025172	0.00063362	0.093639	0.923	0.047234	3.672766	3.672766
-29	6.4	0.164834	0.02717035	1.05494		0.176142	6.223858	9.896624
-28	-0.54	-0.44407	0.19719726	0.239797		-0.38588	-0.15412	9.7425
-27	-6.04	-0.82585	0.68203563	4.988161		-0.73826	-5.30174	4.440764
-26	-8.44	1.603438	2.57101278	-13.533		1.503973	-9.94397	-5.50321
-25	-6.97	-0.69812	0.48737558	4.865917		-0.62037	-6.34963	-11.8528
-24	-6.25	0.442941	0.19619673	-2.76838		0.432835	-6.68283	-18.5357
-23	-7.3	-0.33835	0.11448216	2.46997		-0.2883	-7.0117	-25.5474
-22	-4.9	-0.22612	0.05113203	1.108007		-0.18471	-4.71529	-30.2627

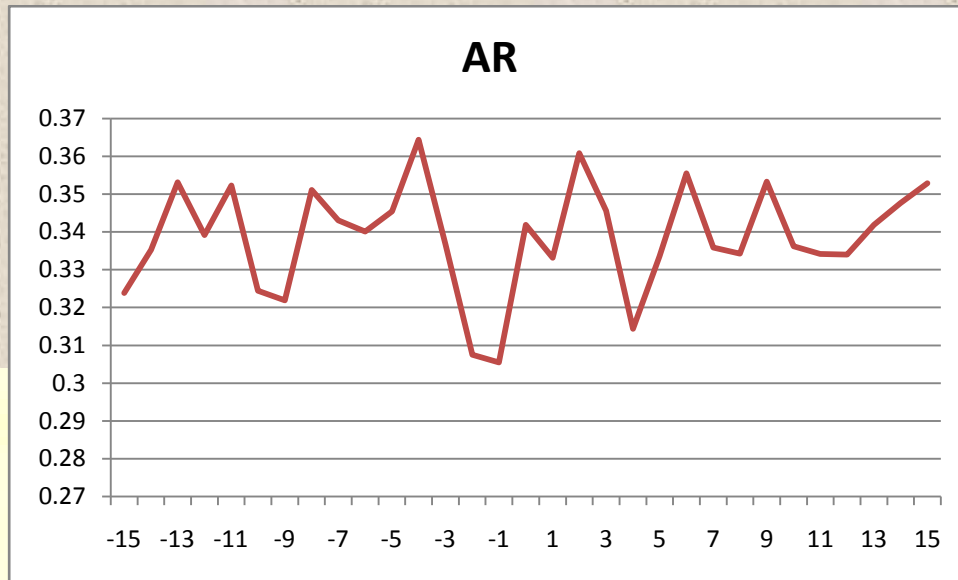
-21	-5.88	-1.42263	2.02388382	8.36508		-1.28909	-4.59091	-34.8536
-20	-4.67	0.177874	0.0316391	-0.83067		0.188178	-4.85818	-39.7118
-19	-5.03	-0.00543	2.9526E-05	0.027332		0.018985	-5.04898	-44.7607
-18	-4.09	-1.07244	1.15012398	4.386273		-0.96586	-3.12414	-47.8849
-17	-0.46	-0.70343	0.49481386	0.323578		-0.62527	0.165266	-47.7196
-16	0.92	0.705973	0.49839746	0.649495		0.675613	0.244387	-47.4752
-15	0.9	3.183607	10.1353544	2.865246		2.962469	-2.06247	-49.5377
-14	0.69	0.662171	0.43847013	0.456898		0.635184	0.054816	-49.4829
-13	0.76	0.183858	0.03380392	0.139732		0.193701	0.566299	-48.9166
-12	-0.26	-0.35648	0.12708091	0.092686		-0.30503	0.045035	-48.8715
-11	-2.59	0.611588	0.37403978	-1.58401		0.588496	-3.1785	-52.05
-10	3.1	0.598578	0.35829559	1.855592		0.576487	2.523513	-49.5265
-9	4.86	0.873666	0.76329165	4.246015		0.830393	4.029607	-45.4969
-8	4.15	0.073714	0.00543372	0.305912		0.092038	4.057962	-41.439
-7	5.16	-0.35411	0.12539712	-1.82723		-0.30285	5.462848	-35.9761
-6	7.78	-0.34879	0.12165586	-2.7136		-0.29794	8.077935	-27.8982
-5	6.49	0.090613	0.00821076	0.58808		0.107636	6.382364	-21.5158
-4	3.28	-0.74343	0.55268812	-2.43845		-0.66219	3.942186	-17.5736
-3	3.66	0.452491	0.20474791	1.656116		0.441649	3.218351	-14.3553
-2	3.68	0.495698	0.24571636	1.824168		0.481529	3.198471	-11.1568
-1	0.92	-0.14655	0.02147739	-0.13483		-0.11127	1.031267	-10.1255
0	0.9	0.431252	0.18597826	0.388127		0.422046	0.477954	-9.64758
1	-3.64	-0.92889	0.86283831	3.381163		-0.83337	-2.80663	-12.4542
2	-4.48	-0.07522	0.00565769	0.336975		-0.04543	-4.43457	-16.8888
3	-5.65	-2.44317	5.96909971	13.80393		-2.23105	-3.41895	-20.3077
4	-6.91	-1.14079	1.30139958	7.882852		-1.02895	-5.88105	-26.1888
5	-7.04	-0.5585	0.31192644	3.931866		-0.4915	-6.5485	-32.7373
6	-8.52	-3.08581	9.52219986	26.29107		-2.8242	-5.6958	-38.4331
7	-9.86	0.291587	0.08502314	-2.87505		0.293135	-10.1531	-48.5862
8	-6.08	0.305632	0.09341109	-1.85824		0.306099	-6.3861	-54.9723
9	-4.16	0.3664	0.13424901	-1.52422		0.362187	-4.52219	-59.4945
10	-7.7	-1.42064	2.01820984	10.93891		-1.28725	-6.41275	-65.9073
11	-1.18	2.106725	4.43829099	-2.48594		1.968507	-3.14851	-69.0558
12	1.65	-1.7463	3.04955833	-2.88139		-1.58783	3.237833	-65.8179
13	-4.29	-2.60052	6.76271225	11.15624		-2.37628	-1.91372	-67.7317
14	-3.44	0.818374	0.66973629	-2.81521		0.779359	-4.21936	-71.951
15	-5.52	0.066008	0.00435708	-0.36437		0.084926	-5.60493	-77.5559
16	-3.91	0.687723	0.47296358	-2.689		0.658769	-4.56877	-82.1247
17	-5.24	-0.74031	0.54805735	3.879219		-0.65931	-4.58069	-92.1507
18	-4.07	1.464075	2.14351582	-5.95879		1.375341	-5.44534	-92.1507
19	-3.26	-0.5154	0.26563569	1.680199		-0.45171	-2.80829	-94.959

20	-0.98	1.120806	1.25620513	-1.09839		1.058504	-2.0385	-96.9975
21	0.66	1.199408	1.43857897	0.791609		1.131053	-0.47105	-97.4686
22	-0.77	-0.5287	0.27952373	0.407099		-0.46399	-0.30601	-97.7746
23	-2.21	-0.8769	0.7689556	1.937952		-0.78538	-1.42462	-99.1992
24	-0.22	0.237781	0.05653986	-0.05231		0.243472	-0.46347	-99.6627
25	0.3	0.280815	0.07885684	0.084244		0.283192	0.016808	-99.6459
26	-4.59	-0.23507	0.05525557	1.078948		-0.19297	-4.39703	-104.043
27	-6.35	0.023197	0.00053812	-0.1473		0.045411	-6.39541	-110.438
28	-4.91	1.287155	1.65676746	-6.31993		1.212044	-6.12204	-116.56
29	-3.2	1.923697	3.70060835	-6.15583		1.799572	-4.99957	-121.56
30	-0.33	1.417547	2.00944087	-0.46779		1.332396	-1.6624	-123.222
	-121.95	-0.20764	72.1878782	67.04909				

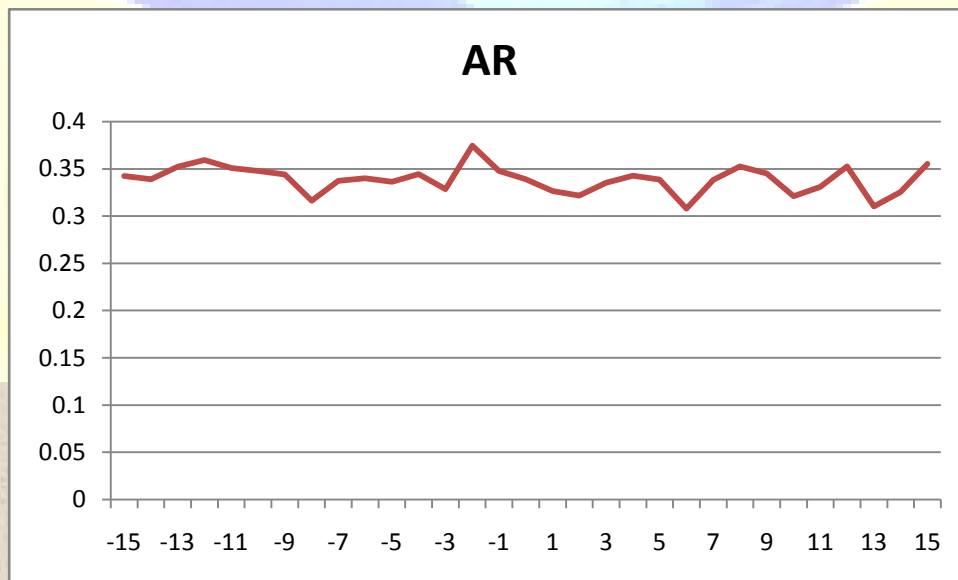
(Source: National Stock Exchange)



INTERPRETATION:- The figure considers the 0 dividend date as on 4th June 2009 and it shows that from -1 to +1 the share prices fluctuated most and the abnormal return touched the level of 4.45%. and if we have a look on the fluctuations in the abnormal return these are not as much high after the 0 date as it is prior to the 0 date. The fluctuations also shows that the investors are known to the announcement.



INTERPRETATION:-The chart consider the 0 date as on 4th February 2010 and depicted that from -1 to +1 there is a surge in the abnormal return which implies that the investors know about the announcement and also prior then the 0 date the abnormal return gone up to 3.68%. The cumulative abnormal return is also as much high as 9.59% which means that investor got the information about the corporate events.



INTERPRETATION:-The above given figure consider the 0 date as on 6 may 2010 and this time shows that there are not much fluctuations in the share prices and because of that abnormal

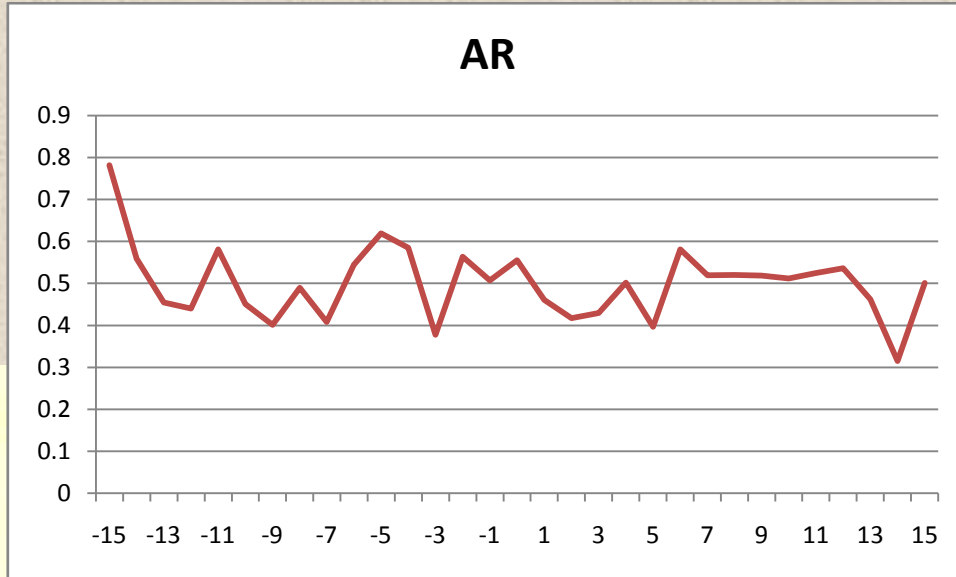
return is also not fluctuating much. It means that either the investors were not aware of the announcement or the dividend has not impacted the share prices.

HDFC BANK

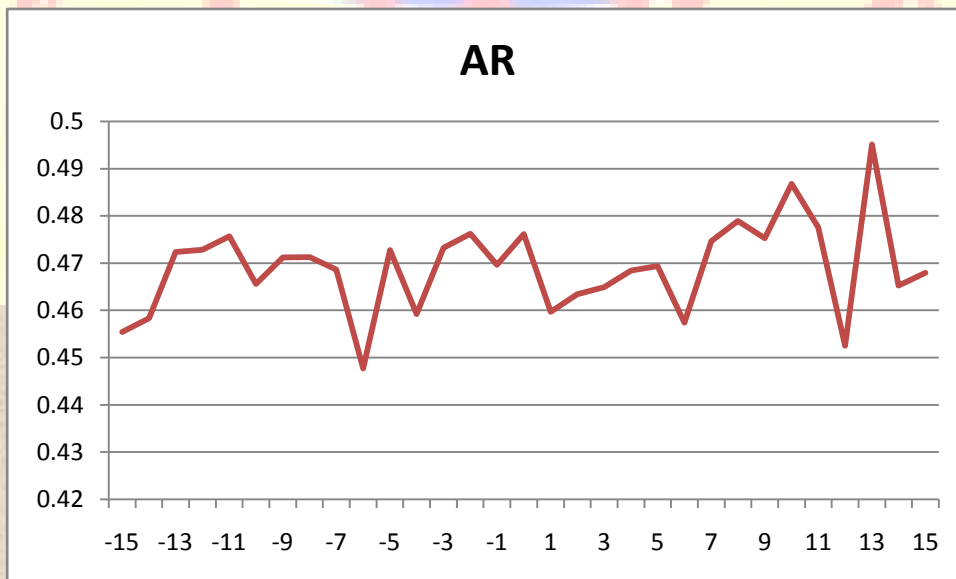
Days	R	Rm	rm2	RRm	Beta	ER	AR	CAR
-30	3.92	-0.36789	0.13534653	-1.44215	1.429	-0.50172	4.421722	4.421722
-29	4.91	-0.3167	0.10030074	-1.55501		-0.42857	5.338568	9.76029
-28	3.79	1.891318	3.57708444	7.168096		2.726694	1.063306	10.8236
-27	15.61	2.190616	4.79879688	34.19551		3.15439	12.45561	23.27921
-26	8.65	0.467311	0.21837958	4.04224		0.691787	7.958213	31.23742
-25	7.48	0.186794	0.03489202	1.39722		0.290929	7.189071	38.42649
-24	10.57	0.115523	0.01334548	1.221074		0.189082	10.38092	48.80741
-23	8.41	0.239487	0.05735415	2.014088		0.366227	8.043773	56.85118
-22	-0.7	-0.41367	0.17112615	0.289572		-0.56714	-0.13286	56.71832
-21	1.17	1.736729	3.01622821	2.031973		2.505786	-1.33579	55.38254
-20	8.56	1.354848	1.83561243	11.5975		1.960077	6.599923	61.98246
-19	7.53	0.144314	0.0208266	1.086686		0.230225	7.299775	69.28223
-18	8.71	0.211367	0.04467588	1.841004		0.326043	8.383957	77.66619
-17	7.95	0.891996	0.79565663	7.091367		1.298662	6.651338	84.31753
-16	0.52	-1.00109	1.00218334	-0.52057		-1.40656	1.926559	86.24409
-15	-0.55	0.333717	0.11136699	-0.18354		0.500881	-1.05088	85.19321
-14	-1.02	-0.55391	0.30682022	0.564992		-0.76754	-0.25246	84.94075
-13	-3.86	0.966614	0.93434307	-3.73113		1.405292	-5.26529	79.67546
-12	-2.71	1.539317	2.3694959	-4.17155		2.223684	-4.93368	74.74177
-11	-3.77	-0.01031	0.00010638	0.038883		0.009261	-3.77926	70.96251
-10	-5.36	-1.57819	2.49066995	8.459075		-2.23123	-3.12877	67.83374
-9	-5.49	0.484192	0.23444152	-2.65821		0.71591	-6.20591	61.62783
-8	-5.72	-0.82893	0.68712728	4.741488		-1.16054	-4.55946	57.06837
-7	1.26	0.331043	0.10958968	0.417115		0.497061	0.762939	57.83131
-6	-5.48	-1.14048	1.30068535	6.249808		-1.60574	-3.87426	53.95705
-5	-1.92	2.205475	4.86411793	-4.23451		3.175623	-5.09562	48.86143
-4	2.71	1.264724	1.59952609	3.427401		1.83129	0.87871	49.74014
-3	-2.53	-0.15446	0.02385823	0.390787		-0.19672	-2.33328	47.40686

-2	5.51	0.70499	0.49701116	3.884496		1.031431	4.478569	51.88543
-1	5.18	-0.00658	4.3344E-05	-0.0341		0.014592	5.165408	57.05084
0	5.18	-0.53189	0.28291216	-2.75522		-0.73608	5.916078	62.96692
1	-1.82	-0.99478	0.98957837	1.810491		-1.39753	-0.42247	62.54445
2	-5.35	-1.48121	2.1939804	7.924469		-2.09265	-3.25735	59.2871
3	-8.49	0.16998	0.02889305	-1.44313		0.266901	-8.7569	50.5302
4	-6.48	-0.52375	0.27431607	3.393912		-0.72444	-5.75556	44.77464
5	-5.36	-2.49812	6.24061894	13.38994		-3.54582	-1.81418	42.96046
6	-0.02	-0.41826	0.17494354	0.008365		-0.5737	0.553697	43.51416
7	2.42	-1.56484	2.44873455	-3.78692		-2.21216	4.632161	48.14632
8	6.72	-0.8159	0.66568935	-5.48283		-1.14192	7.861918	56.00823
9	0.75	-3.13768	9.84506647	-2.35326		-4.45975	5.209752	61.21799
10	1.31	3.218663	10.3597903	4.216448		4.623469	-3.31347	57.90452
11	3.72	1.162389	1.3511478	4.324086		1.685054	2.034946	59.93946
12	0.81	0.661446	0.43751128	0.535772		0.969207	-0.15921	59.78026
13	2.77	2.132425	4.54723518	5.906816		3.071235	-0.30123	59.47902
14	7.59	-0.34102	0.11629435	-2.58834		-0.46332	8.053317	67.53234
15	9.15	2.503425	6.26713756	22.90634		3.601395	5.548605	73.08094
16	7.51	-1.02436	1.04930359	-7.69291		-1.4398	8.949804	82.03075
17	8.77	0.934243	0.87281071	8.193315		1.359034	7.410966	89.44171
18	9.17	1.182384	1.3980312	10.84246		1.713626	7.456374	96.89809
19	5.52	0.08348	0.00696898	0.460812		0.143294	5.376706	102.2748
20	3.97	-0.14931	0.02229398	-0.59277		-0.18937	4.159366	106.4342
21	2.78	-1.29974	1.68933108	-3.61328		-1.83333	4.613332	111.0475
22	3.7	1.271149	1.61581927	4.703251		1.840472	1.859528	112.907
23	1.87	1.01181	1.02376009	1.892085		1.469877	0.400123	113.3071
24	3.68	-0.25468	0.06486289	-0.93723		-0.33994	4.01994	117.3271
25	-0.39	0.345878	0.11963145	-0.13489		0.518259	-0.90826	116.4188
26	-0.2	-2.00833	4.03337368	0.401665		-2.8459	2.645898	119.0647
27	-2.01	-1.27499	1.62560653	2.562735		-1.79796	-0.21204	118.8527
28	2.35	1.840818	3.38861063	4.325922		2.654529	-0.30453	118.5482
29	7.88	1.77424	3.14792861	13.98101		2.559389	5.320611	123.8688
30	13.37	0.025172	0.00063362	0.336548		0.059971	13.31003	137.1788
	154.2	10.88677	97.6338278	164.3553				

(Source: National Stock Exchange)



INTERPRETATION:- This figure shows the AR for the HDFC bank for the event window of -15 days to +15 days to the announcement. Figure shows that investors get abnormal return -10 days prior to the announcement that shows the presence of information in the market. For day 3 and days 6 to 9 shows no abnormal return than again it shows abnormal return form day 7 to 11 after announcement. CAR of the company is equal to 16.1646 which is not equal to zero.



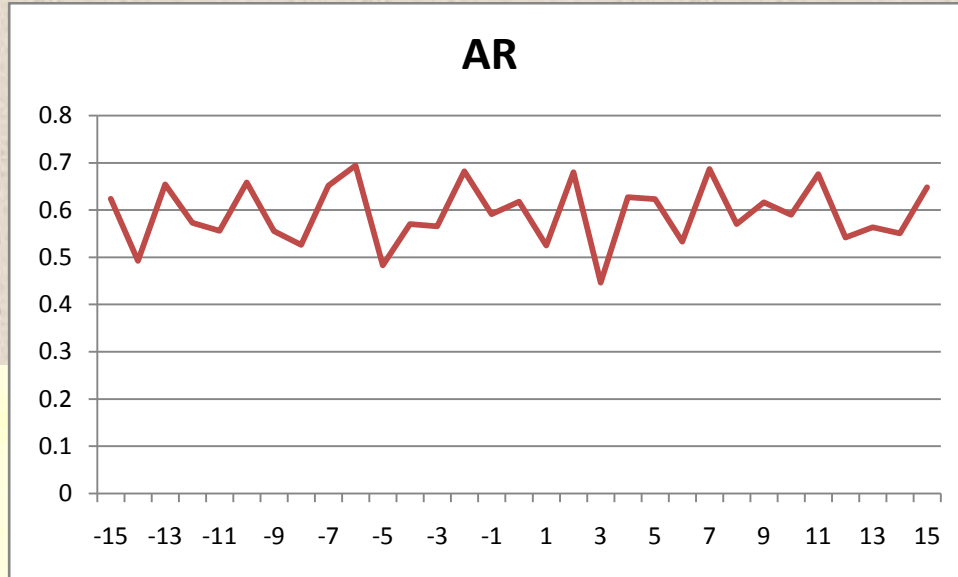
INTERPRETATION:- This figure also shows the Abnormal return of HDFC Bank's share as on the date of 20 April 2010 and it is showing that investors are not getting abnormal returns from -9 to -5 but after that and particularly from the 0 date the able to get the abnormal returns which shows that the investors have proper informations. The CAR gone up as much as 11.34%.

ICICI Bank

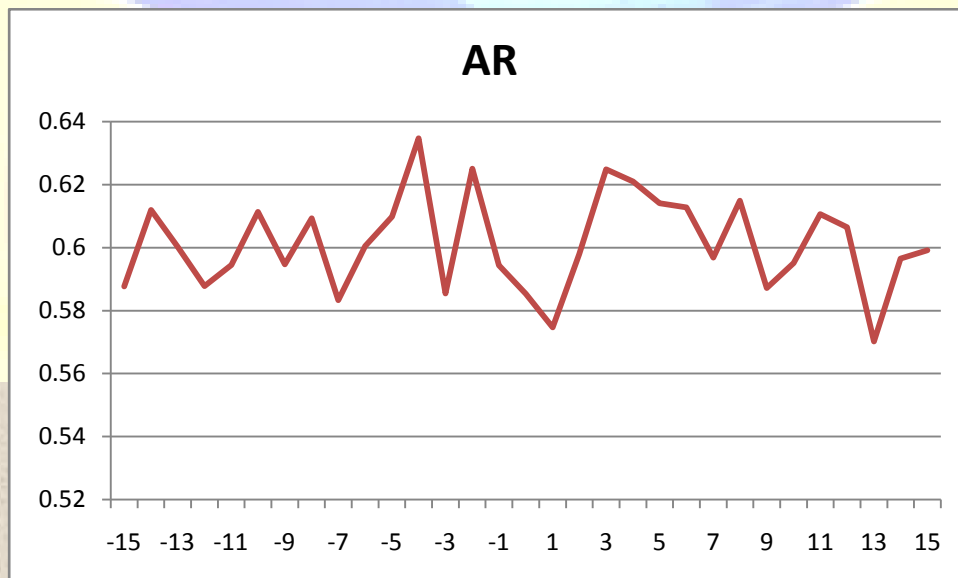
Days	R	Rm	rm2	RRM	Beta	ER	AR	CAR
-30	8.55	-1.89693	3.5983517	-16.2188	0.965	-1.80654	10.35654	10.35654
-29	14.26	-0.09288	0.0086271	-1.3245		-0.06563	14.32563	24.68217
-28	15.86	1.045525	1.0931223	16.58202		1.032932	14.82707	39.50924
-27	-3.29	0.838642	0.7033197	-2.75913		0.833289	-4.12329	35.38595
-26	-7.84	-0.79086	0.6254533	6.200311		-0.73918	-7.10082	28.28513
-25	-8.79	-3.22184	10.380282	28.32001		-3.08508	-5.70492	22.58021
-24	-10.33	-1.95071	3.8052523	20.15079		-1.85843	-8.47157	14.10864
-23	-9.22	0.867955	0.7533459	-8.00255		0.861577	-10.0816	4.027061
-22	-4.36	-2.58944	6.7052039	11.28996		-2.47481	-1.88519	2.141871
-21	2.11	1.686673	2.8448669	3.558881		1.65164	0.45836	2.600231
-20	6.95	-1.79351	3.2166857	-12.4649		-1.70674	8.656739	11.25697
-19	6.48	1.721178	2.9624537	11.15323		1.684937	4.795063	16.05203
-18	0.73	3.890423	15.13539	2.840009		3.778258	-3.04826	13.00378
-17	-2.85	2.133067	4.549973	-6.07924		2.082409	-4.93241	8.071366
-16	0.44	-0.71459	0.5106428	-0.31442		-0.66558	1.105582	9.176948
-15	1.29	1.351125	1.8255375	1.742951		1.327835	-0.03784	9.139113
-14	4.12	0.446889	0.1997098	1.841183		0.455248	3.664752	12.80387
-13	7.98	-0.00463	2.142E-05	-0.03693		0.019534	7.960466	20.76433
-12	8.45	4.732425	22.395848	39.98899		4.59079	3.85921	24.62354
-11	3.92	-0.03259	0.0010623	-0.12777		-0.00745	3.927452	28.55099
-10	1.75	1.553658	2.413854	2.718902		1.52328	0.22672	28.77771
-9	-1.81	3.281521	10.768379	-5.93955		3.190668	-5.00067	23.77705
-8	-0.62	0.855365	0.7316494	-0.53033		0.849427	-1.46943	22.30762
-7	-5.65	-4.19798	17.623018	23.71857		-4.02705	-1.62295	20.68467
-6	-3.42	1.437378	2.066055	-4.91583		1.41107	-4.83107	15.8536
-5	0.72	1.303854	1.700034	0.938775		1.282219	-0.56222	15.29138
-4	4.35	4.925418	24.259745	21.42557		4.777029	-0.42703	14.86435
-3	18.74	1.417568	2.0094994	26.56523		1.391953	17.34805	32.2124
-2	15.67	2.651893	7.0325361	41.55516		2.583077	13.08692	45.29932
-1	14.04	-0.02745	0.0007533	-0.38535		-0.00249	14.04249	59.34181

0	15.76	1.2143	1.4745256	19.13738		1.1958	14.5642	73.90601
1	16.7	3.001251	9.0075053	50.12089		2.920207	13.77979	87.6858
2	9.28	-3.28947	10.820637	-30.5263		-3.15034	12.43034	100.1161
3	4.62	0.441707	0.195105	2.040686		0.450247	4.169753	104.2859
4	-7.09	-0.21616	0.0467267	1.5326		-0.1846	-6.9054	97.38049
5	-11.5	-0.34935	0.1220468	4.017547		-0.31312	-11.1869	86.19362
6	-16.9	-1.03991	1.0814073	17.57443		-0.97951	-15.9205	70.27313
7	-4.87	2.80434	7.8643221	-13.6571		2.730188	-7.60019	62.67294
8	1.48	1.66986	2.7884339	2.471393		1.635415	-0.15542	62.51752
9	-1.68	-0.30931	0.0956741	0.519645		-0.27449	-1.40551	61.11201
10	0.03	-3.10225	9.6239656	-0.09307		-2.96967	2.999673	64.11168
11	7.07	3.319174	11.016919	23.46656		3.227003	3.842997	67.95468
12	2.21	5.182142	26.854591	11.45253		5.024767	-2.81477	65.13991
13	4.86	0.216876	0.0470354	1.054019		0.233286	4.626714	69.76663
14	0.95	-1.00643	1.0128927	-0.9561		-0.9472	1.897201	71.66383
15	4.71	1.623651	2.6362419	7.647395		1.590823	3.119177	74.78301
16	7.58	-1.71585	2.9441281	-13.0061		-1.63179	9.211792	83.9948
17	4.25	-1.82407	3.3272145	-7.75228		-1.73622	5.986223	89.98102
18	6.92	3.558303	12.661518	24.62345		3.457762	3.462238	93.44326
19	8.94	-1.24534	1.550866	-11.1333		-1.17775	10.11775	103.561
20	5.29	-1.13664	1.2919396	-6.0128		-1.07285	6.362853	109.9239
21	2.68	2.175377	4.7322634	5.830009		2.123238	0.556762	110.4806
22	13.29	17.74491	314.8817	235.8298		17.14783	-3.85783	106.6228
23	2.23	-0.10835	0.0117404	-0.24163		-0.08056	2.310561	108.9333
24	6.75	-1.11554	1.2444187	-7.52986		-1.05249	7.802491	116.7358
25	15.14	-1.39142	1.9360599	-21.0662		-1.31872	16.45872	133.1946
26	30.93	0.655884	0.4301843	20.2865		0.656928	30.27307	163.4676
27	21.6	-0.02203	0.0004852	-0.47578		0.002744	21.59726	185.0649
28	20.54	-2.85186	8.1330784	-58.5771		-2.72804	23.26804	208.3329
29	24.81	3.869924	14.976315	96.01283		3.758477	21.05152	229.3845
30	11.28	1.428099	2.0394682	16.10896		1.402116	9.877884	239.2623
	286.09	47.00897	604.77008	570.1903				

(Source: National Stock Exchange)



INTERPRETATION:- This figure represents the AR of the ICICI Bank for the event window - 15 days prior to the announcement and 15 days after the announcement day. Company not shows any abnormal return from day 9 to 7. It shows abnormal return from day 1 to 6 after the announcement and from day -1 to -6 before the announcement. CAR of the company is 10.66785 and it is not closer to zero.



INTERPRETATION:- This figure shows the AR for the ICICI Bank for days (-15 to +15). This figure shows the investor gets abnormal return after the announcement this shows the presence of

information in the market. The investors not get abnormal return before the announcement. The CAR of the company is 13.6659 which is not equal to zero.

FINDINGS:

It has been seen that overall there is an impact of dividend announcements on stock prices and on the returns also and here are some highlights of the research are given as follows:-

- There is an impact of dividend announcements on the stock prices.
- It can be seen that there are a lot of fluctuations in the stock prices during 15 days prior and 15 days after the announcement date.
- It is depicted from the research that before the ex date the CAR is higher and after the ex date it is in decreasing trend.
- The stock prices of public sector banks are not fluctuating as much as the stock prices of private sector bank fluctuate.

CONCLUSION:

This study has empirically examined the informational efficiency of capital market with regard to dividend issue announcement released by the companies with special reference to SBI Bank, PNB Bank, ICICI Bank and HDFC Bank. There results of the study showed that the security prices reacted to the announcement of dividend issue. Thus one can safely conclude from the foregoing discussions that the Indian capital market, in general, are efficient, but not perfectly efficient, to the announcement of dividend. This informational inefficiency can be used by the investors for making abnormal returns at any point of the announcement period. So, from here we can see that only half of the companies have the effect of the dividend announcement, it means that market are semi efficient and time of announcement can be used for the making easy money but is very rare to find that on which date company will announce the dividend if investor are able to predict this than in that case easy money can be made with the help of that information.

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