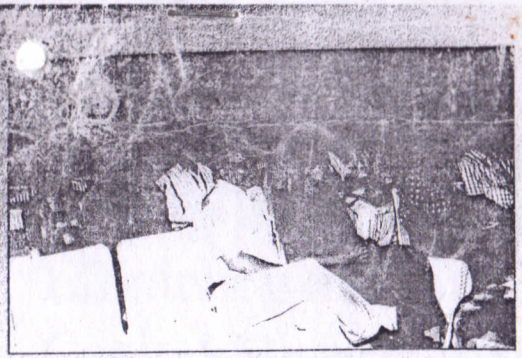
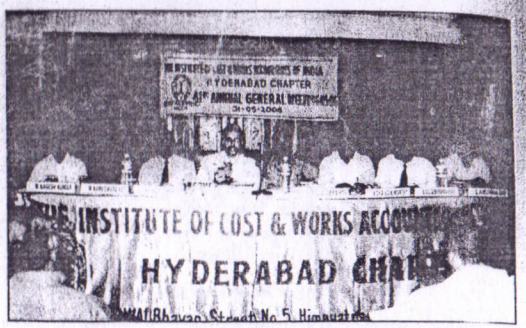


A view of Gathering at Conference-2006 organized by Ludhiana Chapter of Cost Accountants.



41st Annual General Meeting 2005-06 of Hyderabad Chapter of Cost Accountants. Seen in the picture from left to right are : M. Nagesh Kumar, Secretary, Hyderabad Chapter, M. Kameswara Rao, Treasurer, Hyderabad Chapter, V. Bhanu Murthy Rao, Vice-Chairman,Hyderabad Chapter, C. Sudhir Babu, Chairman, Hyderabad Chapter, D.L.S. Sreshti, Vice-Chairman, SIRC, K.Ch.A.V.N.S. Murthy, Member of Hyderabad Chapter, G.V.S. Subrahmanyam, Member, Coaching Admn.,Hyd.Chapter and G. Narayan Rao, Member Services, Hyderabad Chapter.

S. M. Ameerul Millath, Registrar of Companies, Kerala, releasing the CD on MCA 21, at the joint programme of ICWAI, ICAI, ICSI held at Trivandrum on 15.3.2006. Standing from left to right – H. Padamanabhan, Chairman, ICWAI,Trivandrum Chapter, M. R. Ranjith Karthikeyan, Chairman, ICAI, Trivandrum Branch and R. B. Iyengar, Tata Consultancy Services.

Hyderabad Chapter of Cost Accountants organized a programme on 'Balanced Score Card' jointly with HMA and Quality Circle Forum of India on 12.5.06. Seen in the picture from left to right are : C. Sudhir Babu, Chairman, Hyderabad Chapter of Cost Accountants, S. Sivakumar, President, HMA, Prof. B. Subrahmaniam, Speaker, Doyen of Quality Circles Movement in India, M. Mahendar Reddy, IPS, Commissioner of Police, Cyberabad and Ch. Balakrishna Rao, Chairman, QCFI..

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Testing Informational Efficiency of Indian Capital Market: A study on Banking Industry

K. Anand Babu and Dr. M. Selvam*

An efficient and integrated capital market is an important infrastructure that facilitates capital formation. The efficiency with which the capital formation is carried out depends on the efficiency of the capital markets and financial institutions. A capital market is said to be efficient with respect to an information item if the prices of securities fully impound the return implications of that item. This study has empirically examined the informational efficiency of capital market with regard to quarterly earnings released by the banking sector companies in the semi-strong from of EMH. The study found that the Indian capital market is not perfectly efficient in the semi-strong form of EMH, which can be exploited by the investors to make abnormal returns.

Introduction

A capital market is said to be efficient with respect to an information item if the prices of securities fully impound the return implications of that item. In an efficient market, when a new information item is added to the market, its revaluation implications for security returns are instantaneously and unbiasedly impounded in the current market price. Several studies have empirically tested the reaction of security prices to the release of different information. Beaver (1968), Patell and Wolfson (1984), Foster (1981), Richardson (1984), Maingot (1984), Ball and Brown (1968), McEnally (1971), and Beaver, Clarke, Wright (1979) are some of the studies which find significant reaction in the security prices to the release of accounting information. Another finding of these studies is that during the announcement period, there are abnormal returns. On the Indian capital market, Md. Obaidullay (1992), Hari Om Chaturvedi (2000), Prabina Das, S. Srinivasan, and A. K. Dutta (2000), Kakati (2001), Jijo Lukose and Narayan Rao (2002) are some of the studies which have tested the efficiency of the Indian capital market with respect to the release of accounting information. A few Indian studies have tested the efficiency of the Indian capital market with respect to quarterly earnings information. Further, these studies could not find out the exact period during which the market reacts to a piece of information.

One explanation for market efficiency is the competitive activities of security analysts. Larger the number of analysts, the more efficient will be the market. Market efficiencies are most likely for stocks followed by large number of analysts and least likely for stocks with limited coverage by analysts. The more visible a company, the more perfect its market is likely to be. 'Perfect' means that most of the likely factors affecting the price of its securities are presumably known to the market and vice versa.

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Review of literature :

A brief review of select studies is presented here. This provides an overview of earlier studies carried out in the area of research.

Abhijit Dutta (2001), has examined the investors' reaction to information using primary data collected from 600 individual investors and observes that the individual investors are less reactive to bad news as they invest for longer period.

Hari Om Chaturvedi (2000), in his doctoral thesis, observed that the cumulative abnormal returns (CAR) between the portfolios with positive and negative unexpected half-yearly earnings was significant. He further observes that more than half of the stock price adjustment occurred in the post announcement period.

Prabina Das, S. Srinivasan and A. K. Dutta (2000) have studied the reaction of GDR prices and the underlying share prices to the announcement of dividends. The study finds that the CAR for the GDR is mostly negative irrespective of the rate of dividend, whereas the domestic share prices react in a more synchronous manner.

Jijo Lukose and Narayan Rao (2002) examined the security price behaviour around the announcement of stock splits and around ex-split date. They find that there is 7.69 percent abnormal returns during the two days (i.e. the day of announcement of stock split and the next day). The study also finds significant abnormal returns around ex-split date.

A few Indian studies have tested the efficiency of the Indian capital market with respect to quarterly earnings information. Further, these studies could not find out the exact period during which the market reacts to an information.

Capital Market Efficiency:

The capital market plays a pivotal role in the allocation of economic resources into productive activities of the economy, which are possible only if the securities traded in the markets are priced appropriately. A capital market in which stock prices fully reflect all available information can be termed as efficient. Eugene Fama (1960) classified the market efficiency into the following three categories depending on the information set that is fully reflected in the security prices.

a. **Weak-Form of Efficiency,** popularly known as Random Walk Theory states that the current stock prices reflect all the information that is contained in the historical sequence of prices.

b. **Semi-Strong Form of Efficiency,** which states that current market prices not only reflect all information content of historical prices but also reflect all the information, which are publicly available about the companies being studied.

c. **Strong-Form of Efficiency,** which states that current market prices reflect all information whether it is publicly available or private information (insiders information).

Objectives of the study:

The objectives of the present study are as follows

1) To examine the information content of the Quarterly Earnings. Announcement made by the banking sector companies.
2) To test the speed with which the Quarterly Earnings Informations are impounded in the share prices.
3) To test the direction of change in the security prices to the direction of changes in the earnings.
4) To test the magnitude of change in the security prices to the magnitude of changes in the earnings.

Scope of the Study:

The present study tests the informational efficiency of the Indian Capital Market in the Semi-Strong Form of Efficient Market Hypothesis (EMH). The study covers five financial years ranging from 2000-01 to 2004-05. The study is restricted to first and third quarters because second quarter coincides with half yearly earnings and fourth quarter coincides with annual earnings. For some of the sample companies, the quarterly earnings information and/or the dates of announcement were not available. Finally, the total number of Quarterly Earnings Announcement considered for the study was 63. Out of them, 52 quarters had positive earnings change and 11 quarters had negative earnings change. The earnings change can be defined as the difference between the net profit margin of a quarter and the net profit margin of the same quarter in the preceding year.

Relevance of the Study

One major source of information that the investors can make use of valuation securities is accounting information. Accounting information and capital market efficiency are of greater interest to the investors, fund managers, analysts, planners, policy makers, and market regulators, accounting standard setters, researchers, the government, and the public in general. Since 1998-99, SEBI has made it mandatory for all the listed companies to furnish the unaudited quarterly financial results within a month of expiry of the quarter to the stock exchange where the company is listed, as one of the steps towards efficient market. Do these quarterly earnings reports contain information relevant for valuation of securities? If so, do the security prices impound the information rapidly and unbiasedly? The present study is an attempt to test the efficiency of the Indian Capital Market with respect to quarterly earnings announced by the companies in the Semi-Strong Form of EHM.

Sample Selection:

The study intends to cover the banking industry stocks listed in NSE. Out of all the companies brought under Banking Sector in the NSE as on 11th August 2006 (as per the PROWESS database), only 12 companies which satisfy the following criteria were selected.

i. The companies, which find a place in the CNX Bankex, a sectoral index of NSE, are selected. This ensures active trading and availability of daily share price quotations,

ii. Availability of the dates of announcement of quarterly earnings, and

iii. Availability of quarterly earnings information

Sources of Data:

The information regarding adjusted share price, quarterly earnings, dates of quarterly earnings announcements, and values of S&P CNX 500 were obtained from "PROWESS" published by CMIE. Other relevant information are also obtianed from the NSE website (http://www.nseindia.com/), books, and journals.

Tools used for the Analysis:

a. Daily returns

The daily returns were calculated for both individual securities as well as

Market Index using the following equation.

$$Ri,t = \frac{P_t - P_{t-1}}{P_{t-1}} \times 100 \qquad (1.0)$$

Where,

$R_{i,t}$ =Returns on Security i on time t.

P_t =Price of the security at time t

P_{t-1} =Price of the security at time $t-1$

b. Security Returns Variability

SRV model is used to know the reaction of the market. Symbolically, the model is

$$SRV_{i,t} = \frac{AR^2_{i,t}}{V(AR)} \qquad (1.1)$$

Where,

$SRV_{i,t}$= Security Returns Variability of security i in time t

$AR^2_{i,t}$=Abnormal returns on security i on day t

V (AR) = Variance of Abnormal Returns during the announcement period

Abnormal Returns (AR) under **market-adjusted abnormal returns** is calculated using by the equation as below;

$$AR_{i,t} = R_{i,t} - R_{m,t} \qquad (1.2)$$

Where,

$AR_{i,t}$=Abnormal returns on security i at time t

$R_{i,t}$=Actual returns on security i at time t

$R_{i,m}$=Actual returns on market index, which is proxied by S&P CNX 500, a weighted average index of 500 companies published by NSE, at time t.

Thus daily actual returns over the announcement period (41 days) were adjusted against their corresponding market returns.

i. Average Security Returns Variability (ASRV)

The $SRV_{i,t}$ so calculated for all the quarters are averaged to find the Average Security Returns Variability ($ASRV_t$) by using the following equation.

$$ASRV_t = SRV_{i,t} \times (1/n) \qquad (1.3)$$

Where,

$ASRV_t$=Average Security Returns Variability at time t

$SRV_{i,t}$=Security Returns Variability i security at time t

n=Number of quarters in the sample

C. Average Abnormal Returns:

The Average Abnormal Returns is calculated by the equation given below

$$AAR_t = \frac{1}{n}\sum_{t=1}^{n} AR_{i,t} \qquad (1.5)$$

Where,

AAR_t=Average Abnormal Returns on day t

$AR_{i,t}$=Abnormal Returns on security i at time t which is calculated by using the equation (1.2)

D. Cumulative Abnormal Returns (CAR)

The CAR is calculated as

$$CAAR_k = \sum_{t=1}^{k} AAR_t \qquad (1.7)$$

Where,

$CAAR_k$=Cumulative Average Abnormal Returns for the k^{th} period. Hereafter, it is referred to as CAR,

AAR_t=Average Abnormal Returns of sample quarters at time t which is calculated by using the equation (1.5)

E.T-Test

i) The significance of reaction in security prices ($ASRV_t$) is tested by using the T-statistics as follows:

$$t_{stat} = (ASRV - 1) \times \sqrt{n/s} \qquad (1.4)$$

Where, n is the number of quarters in the sample and s is the Standard Deviation of abnormal returns.

ii) The significance of the AAR_t is tested using the t-test as follows;

$$t_{stat} = AAR_t \times \sqrt{n/s} \qquad (1.6)$$

Where, AAR_t is the Average Abnormal Returns on time t, n is the number of quarters in sample and s is the Standard Deviation of Average Abnormal Returns. The AAR, is calculated for the positive and negative earnings change separately.

Analysis of the Study:

The analysis has been done in the following way to empirically test the informational efficiency of the Indian capital market with special reference to the shares of selected IT Companies.

a. Analysis of Average Security Returns Variability (ASRV or SRV)

b. Analysis of Abnormal Returns (AAR)

c. Analysis of Cumulative Abnormal Returns (CAR)

a. Average Security Returns Variability: (ASRV)

In order to find out whether there is reaction in the prices of securities being studied to the announcement of quarterly earnings, and to know the length of the period of reaction, the SRV model is used. It is the ratio of abnormal returns squared on a particular day to the variance of abnormal returns during the announcement period. In an informationally efficient market, the ASRV is expected to be 1. If the SRV is greater than 1, it may be said that there is significant reaction in the security prices (i.e the market is not informationally efficient).

The values ASRV with t-value is presented in Table-I, which clearly shows that the ASRV on day 1 was 2.18, the highest value of ASRV during 41 days of the announcement period. As the value of ASRV exceeded one in some of the announcement period, it is presumed that the market reacted to the announcement of quarterly earnings. It is interesting to note that the reaction of share price took place consistently for 7 days (from day-4 to day 2) out of 41 days. The ASRV value for 7 days (from day-4 to day 2) was 1.13, 1.07, 1.00, 1.04, 1.46, 2.18, and 1.16 respectively. The results of ASRV were presented in the form of curve in Figure-1. The ASRV curve steeply rose on day 1.

From the overall analysis, as given in Table II, it could be noted that the average ASRV during the period of 41 days was 1.00. That is, the average ASRV during 41 days came to the neutral value (i.e. 1). During the period of 20 days prior to day 0 (from day -20 to day-1), the average ASRV was 0.98 while the average ASRV during the period of 21 days (from day 0 to day 20) was 0.99. But during the period of 7 days (from day-3 to day 3), the average ASRV was 1.27. From this it is understood that there was reaction for a few days surrounding the day of the announcement (day 0).

The foregoing discussion reflects the following:

- ✓ Quarterly earnings announced by banking companies contain information for valuing the securities.
- ✓ Capital market for banking company stocks reacted heavily only on the day of the announcement (day 0) and also on the next day of the announcement (day 1).
- ✓ However the reaction on day 1 is much greater than on day 0.
- ✓ One of the possible reasons for this reaction may be the date and timing of Board Meeting (which approves the announcement of quarterly earnings). Generally, the Board Meeting is conducted in the evening hours (i.e. after trading hours of the stock exchanges). As a result, the investors receive quarterly earnings information after the trading hours and they could react to the information only on the next day. Hence, it may be said that the market reacted to the announcement of quarterly earnings information, a day next to the day of its announcement. It has been noted that there was reaction on the day of announcement and also on the previous day of the announcement, may be, due to expectations of the investors, etc.
- ✓ Apart from the sharp reaction on day 0 and day 1, there have been reactions during the pre announcement period as well as post announcement period. The pre announcement reaction shows that the market is able to capture the earnings information before its announcement. However, the post announcement reaction shows that the market is not able to capture the information fully immediately.
- ✓ As the market reacts to the quarterly earnings announcement, the Indian capital market may be said to be informationally inefficient in the semi-strong form. However, it is not perfectly efficient. Of course, no market can be expected to be perfectly efficient.

b. Abnormal Returns for the Banking Industry:

The earlier discussion showed that the quarterly earnings contain information for valuing the securities. The SRV (or ASRV) model helps us to find the reaction of securities prices but it failed to show whether there was positive reaction or negative reaction. Further, it did not show the magnitude of change in the security prices. The abnormal returns and cumulative abnormal returns are used in order to find out the direction and magnitude of changes in the security prices around the quarterly earnings announcement. The average abnormal returns for both positive earnings change and the negative earnings changes are calculated separately to know the direction of security price movements to the direction of reported earnings change and the magnitude of change.

Abnormal returns were calculated for the 41 days around the the announcement of quarterly earnings for the sample of 63 quarters. The Abnormal Returns so calculated for each quarter was averaged to get the Average Abnormal Returns (AAR). AAR is calculated for the positive earnings change and negative earnings change separately. The earnings change in a quarter is considered to be positive if the net profit margin for the quarter is greater than the net profit margin of the same quarter in the preceding year and it is considered to be negative if it is less than the net profit margin of the same quarter in the preceding year.

The results of the AAR for the banking industry stocks along with t-value are presented in Table-I. The results were given separately for positive earnings change (AAR+) and negative earnings change (AAR-). The AAR+shows that from day-11 to day-1 there was wider fluctuation in the security prices. That is, the positive abnormal returns of any one day were followed by the negative abnormal returns on the very next day. This trend was continued till day-1. On day 0, the abnormal returns available to investors stood at 1.27 (highest abnormal returns available during the period of 21 days starting from day–10 to day +10). This was followed by the consistent negative

abnormal returns until day 3. Beyond day 0 the significant abnormal returns were available on day 4 (1.75), day 5 (1.15), day 7 (1.15), day 12 (1.05), and day 14 (1.75).

Table-II shows that on an average, 0.21 percent of abnormal returns were available during the announcement period of 41 days (from day-20 to day +20). While the average abnormal returns during the post announcement period of 21 days (from day 0 to day +20) was 0.16, the average abnormal returns during the pre announcement period of 20 days (from day -20 to day -1) was 0.27. The average abnormal returns during the period of 7 days (starting from day-3 to day +3) were 0.08. It is understood from this that most of the returns content of quarterly earnings informations were reaped by the various market participants before its announcement. From this we could conclude that the Indian capital market for banking sector securities was efficient (quarterly earnings came with positive earnings change) in the semi-strong form of EMH, but it is not perfectly efficient since the average AAR+of 0.16 were available during the post announcement period. That is, only part of the returns content of quarterly earnings informations were captured by the various market participants before announcement.

Table-I also presents the value of AAR-. The negative earnings should lead to negative abnormal returns. As shown in Table-I, there was negative abnormal returns on most of the days during the post announcement period. It is important to note that there was a consistent positive abnormal returns during the period from day -4 to day 4, except day 0 where the AAR- was –2.34. As inferred from Table-II, the average AAR- stood at-0.06 during the pre announcement period. During the announcement period of 41 days, the average AAR- was 0.03 but it is 0.13 during the post announcement period. The average AAR- of 0.11 is available during the period of 7 days (from day-1 to day 3). According to EMH, the reaction in the security prices took place on or before the announcement of an event. As far as this study is concerned, the reaction took place after the announcement of the quarterly earnings. This clearly indicates the informational inefficiency of the Indian capital market for the announcement of quarterly earnings (quarterly earnings came with negative earnings change). One of the possible reasons for this delayed reaction may be the positive expectation of the investors, if they are long-term investors, about the banking sector stocks.

c. Cumulative Abnormal Returns (CAR) for the Banking industry:

The Cumulative Abnormal Returns (CAR) shows the relationship between the magnitude of earnings change and the magnitude of price change. Besides, it shows the direction (positive or negative) in the stock price change to the given direction of earnings change. For the purpose of this study, CAR was calculated separately for positive earnings change (CAR+) as well as negative earnings change (CAR-).

The results are presented in Table-I and represented in Figure-II. According to EMH, the positive earnings change result in positive CAR while negative earnings change result in negative CAR. Further, the CAR (whether positive or negative) should increase till the announcement day and thereafter it is to be stabilised (there should not be much volatility in the security prices).

It is observed that the CAR+ has steadily increased with minor fluctuations during the post announcement period. It is to be noted that from day–12 to day 1, the CAR+ ranged between of 3.43 to 5.03 due to fluctuations. On day 0, the CAR+reached to 6.68 and thereafter it declined to 5.03 on 3rd day. The CAR+ reached as high as 9.79 on day 14 and 15 and it ends with 8.70 on day 20. The CAR+curve given in Figure-II expresses the above discussions graphically.

The CAR- values showed that there was a greater volatility in the security prices due to inefficient assessment of quarterly earnings by the various market participants. It was as low as 0.25 on day 0 and as high as 3.15 on day 11. After day 11, the value decreased to 1.23 on day 20. This indicates the fact that the reaction extended upto day 20. Such a delayed reaction indicated the informational inefficiency of the Indian capital market for the announcement of quarterly earnings (with negative earnings change). It is important to note that the investors could make superior returns if they could use this informational inefficiency.

The notable points:

From the above discussions of Abnormal Returns and Cumulative Abnormal Returns, the following notable information are derived.

- The quarterly earnings information released by the sample banking companies contained useful information for valuing the securities. Further, this was confirmed by the results of SRV model discussed earlier.
- For the quarterly earnings with positive earnings change, the market reacted quickly.
- The reaction was extended upto +20 days for the quarterly earnings with negatively earnings change.
- Information of negative earnings change can be used by the investors for making abnormal returns at any point of the announcement period, through the strategy of short selling.

Table-I

Analysis of ASRV, AAR+, AAR-, CAR + and CAR - of Banking Industry

Days	ASRV	t-value	AAR +	t-value	AAR -	t-value	CAR +	CAR -
-20	1.12	0.54*	-0.46	-1.60**	0.38	0.56	-0.46	0.38
-19	1.10	0.39**	1.68	2.78@	0.66	0.98*	1.22	1.04
-18	0.89	-0.67	-0.96	-2.93@	0.57	0.69*	0.27	1.61
-17	0.81	-1.72	0.05	0.13	-1.00	-1.48**	0.31	0.61
-16	0.90	-0.50	-0.29	-0.71*	0.79	0.71	0.03	1.41
-15	0.84	-1.00	1.08	2.31@	0.39	0.57	1.11	1.79
-14	0.98	-0.12	0.02	0.04	-0.58	-1.12**	1.12	1.22
-13	1.29	0.99**	0.87	2.29**	1.11	1.38**	2.00	2.33
-12	0.96	-0.24	1.44	4.26@	-1.43	-2.26@	3.43	0.90
-11	1.09	0.34*	1.21	2.88@	0.69	1.17**	4.65	1.59
-10	0.85	-0.89	-0.41	-1.17**	1.24	1.80**	4.23	2.83
-9	0.94	-0.36	0.03	0.08	0.73	0.76*	4.26	3.56
-8	0.70	-2.14	-0.10	-0.26	-0.84	-1.56**	4.16	2.72
-7	1.36	1.15**	0.39	0.87*	-2.32	-3.21@	4.55	0.40
-6	1.12	0.65*	-0.10	-0.21	1.11	1.06**	4.45	1.51
-5	0.78	-1.84	0.49	1.17**	-1.38	-2.82@	4.94	0.13
-4	1.13	0.61**	-0.48	-1.15**	0.68	0.59*	4.47	0.80
-3	1.07	0.34*	0.89	2.00@	1.14	1.84**	5.35	1.94
-2	1.00	-0.01	-0.02	-0.05	0.62	0.76*	5.33	2.56
-1	1.04	0.14*	0.08	0.20	0.03	0.06	5.41	2.59
0	**1.46**	**1.60****	**1.27**	**2.44@**	**-2.34**	**-2.20@**	**6.68**	**0.25**
1	2.18	2.69@	-0.51	-1.58**	0.75	0.89*	6.18	1.00
2	1.16	0.70*	-0.94	-2.25@	0.09	0.13	5.24	1.09
3	0.98	-0.11	-0.20	-0.53	0.48	0.58*	5.03	1.57
4	1.01	0.04**	0.64	1.32**	0.32	0.52*	5.67	1.89
5	0.97	-0.16	1.15	4.75@	-0.96	-1.45**	6.83	0.93
6	0.84	-1.06	-0.01	-0.04	-0.01	-0.02	6.82	0.92
7	0.88	-0.55	1.15	2.55@	1.41	2.54@	7.96	2.34
8	1.20	0.74**	-0.73	-1.95**	0.59	1.26**	7.24	2.92
9	0.86	-0.73	-0.49	-1.65*	-0.10	-0.21	6.75	2.83
10	0.87	-0.75	-0.52	-1.18**	0.13	0.33	6.23	2.96
11	0.46	-6.59	0.23	0.74	0.19	0.52	6.45	3.15
12	1.10	0.36*	1.05	1.54**	-0.40	-0.68*	7.51	2.76
13	0.73	-1.48	0.54	0.95	-0.72	-1.43**	8.04	2.04
14	0.65	-1.52	1.75	3.22@	-0.04	-0.11	9.79	2.00
15	0.79	-1.27	0.01	0.01	-0.97	-2.02@	9.79	1.03
16	0.88	-0.73	-0.73	-1.71**	0.32	0.70*	9.06	1.35
17	0.98	-0.06	-0.24	-0.89	0.26	0.28	8.82	1.61
18	1.02	0.07**	0.46	1.36*	-0.11	-0.23	9.28	1.49
19	1.07	0.34*	0.02	0.05	-0.90	-1.08**	9.31	0.60
20	0.59	-3.98	-0.60	-1.92@	0.64	0.90*	8.70	1.23

Source: Computed from "PROWESS" a corporate database.

Notes: * = significant at 10%, ** = significant at 5 %, @ = significant at1 %

Table-II: *Average Values of ASRV, AAR+ and AAR- of Banking Industry*

Period	ASRV	AAR+	AAR-
From day -20 to day 20	1.00	0.21	0.03
From day -20 to day -1	0.98	0.27	-0.06
From day 0 to day 20	0.99	0.16	0.13
From day -3 to day 3	1.27	0.08	0.11

Source: Computed from Table-I

Figure I

Average Security Returns Variability for the Banking industry

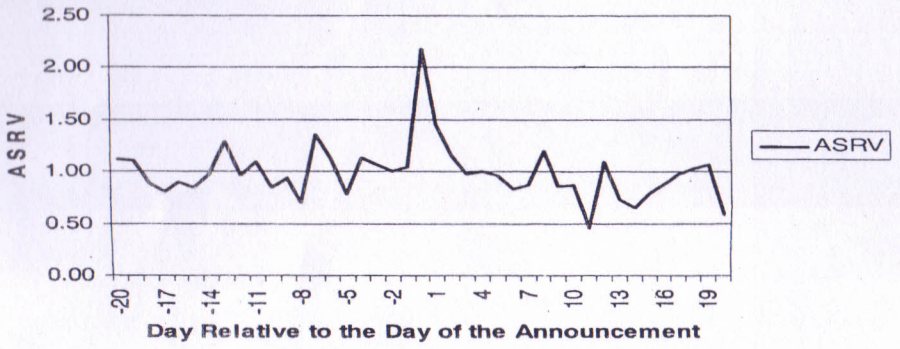
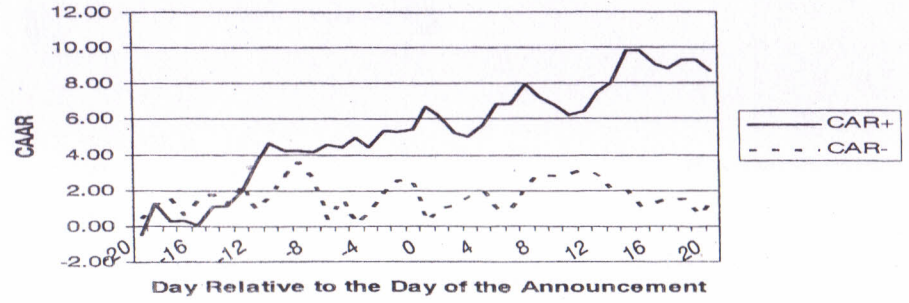


Figure II

Cumulative Average Abnormal Returns (CAR) for the Banking industry



Conclusion

This study has empirically examined the informational efficiency of capital market with regard to quarterly earnings released by the banking sector companies. The results of the study showed that the security prices reacted to the announcement of quarterly earnings made by the companies. The reaction took place for the very few days surrounding day 0, for the quarterly earnings with positive earnings change while the reaction was extended upto +20 days for the quarterly earnings with negatively earnings change. Thus one can safely conclude from the foregoing discussions that the Indian capital market for the banking stocks, in general, are efficient, but not perfectly efficient, to the announcement of quarterly earnings (comes with positive earnings change information) and inefficient for the negative earnings change information. This informational inefficiency can be used by the investors for making abnormal returns at any point of the announcement period.

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