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Role of Credit Rating Agencies in Providing Information: A Study in India

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Abstract

Participants in the market seek price relevant information to make appropriate investment decision.Most of the time investors and analysts depend on publicly available information. Credit rating agencies claim that they provide superior information which is new to the market. Prior research suggests that credit rating agencies act as substitute information providers for firms followed by relatively few analysts. Efficient market hypotheses states that market is efficient and absorbs new information quickly and incorporates it in the price. This study analyzes the information content on credit ratings announcements of CRAs using event study methodology. The results of this study reveal insignificant market response to the announcement of CRAs ratings and there is no information content in the announcement of CRAs ratings. This result supports the view that Indian capital market is efficient in processing and incorporating the new information as and when it is published.

Keywords: *Announcement, Information, Investors, Market Efficiency, Rating.*

I. INTRODUCTION:

Financial market participants need information to take appropriate decisions. Non-availability of quality and processed information is common problem in the financial market for various reasons. Investors and participants in the market relay on the publicly available information for decision making. An efficient market absorbs publicly available information and reflects in the current price of the shares. Investor can't make abnormal return in an efficient market using new information available in the market. Absence of information is a common problem and they search for price relevant information from different sources. Credit rating agencies (CRAs) has emerged to address the problem of non availability of information, particularly credit quality of the issuers of securities. Rating is a useful tool not only for the investor, but also for the issuers to attract the investors. CRAs claim that they provide price relevant information as they access insideinformation which is not generally available to publics. Therefore, it is assumed that credit rating published by the rating agencies act as substitute information providers for investors, analysts and publics.CRAs help investors to decide how risky it is to invest in certain securities. Poor credit rating indicates high risk of default. It is believed that rating agencies provide the accurate financial positions of the borrowers through different ratings. Sharma and Chandan (2006) reveal that ratings issued by the major rating agencies have proved to be a reliable source of information. Keller (2006) opines that transparency and efficiency in debt capital markets by reducing information asymmetry

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between borrowers and lenders benefits the market by increasing investor confidence and allowing borrowers to have broader access to funds. However, solicited rating given by the rating agencies are criticised as they provide rating for a fee. Findings of prior research are mixed on the information content of credit rating agencies. This study analyzes the information content on credit ratings published by CRAs using event study methodology. The results of this study reveal insignificant market response to the announcement of CRAs ratings and there is no information content in the announcement of CRAs ratings. Further, Indian capital market is efficient in processing and incorporating the new information as and when it is published.

II. Objectives of the Study:

The objective of this study is to examine the information content of ratings published by different CRAs in Indian market and to test the efficiency of Indian capital market.

III. Sample and data for the Study:

The entire study is based on the secondary data collected from Prowess, the corporate database of Centre for Monitoring Indian Economy (CMIE). This study use initial credit rating, rating upgrading, and rating down grading given by credit rating agencies in India. Information content of credit rating provided by the rating agencies are analysed using 366 initial ratings, 106 upgrades and 166 downgrade announcements.

IV. Methodology of the Study

This study use event study methodology to analyse the share price reactions to the announcement of initial ratings, upgrades and downgrades announced by Indian rating agencies. This study estimate the excess returns for a window period of 61 days tocapture the information content of credit ratings. This 61 days window period includes 30 days before the announcement of CRAs rating, 30 days after the announcement of CRAs rating and 0th day being the day of announcement. Event study methodology and OLS market model are used to estimate the abnormal returns (AR), average abnormal returns (AARs) and cumulative average abnormal returns (CAARs) for the event period. This study also evaluates the results for smaller event periods within the event period of 61 days to examine the impact of the event. These AARs and CAARs are tested at 5 percent levels of significance and tested the hypotheses that the stock price responses to the announcement of CRAs ratings are insignificant.

V. Review of Literature

Prior researchers examine the efficiency of capital market in different global markets including Indian market. The results of prior studies reveal mixed results. Mishra (2009)[1]examines the efficient market hypothesis by testing the same for Indian capital market and adds to the literature the evidence of its weak form inefficiency. Further he opines that this inefficiency may be due to stock market anomalies and market volatility. He also

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observes that people such as corporate officers who have inside information can do better than the market averages, and individuals and organizations that are especially good at digging out information on small, new companies are likely to consistently do so well. He concludes that market inefficiency is also, an indicative of sub-optimal allocation of portfolios into capital market of India.Dhatt (2010)[2]reveals that the buyback announcement has a positive impact on the share prices and its effect is fully incorporated in the share prices by the announcement day. Further he reveals that tender offers generate a higher announcement return than open market offers and the pattern of underperformance preceding the announcement is greater and significant for the open market offers than the tender offers. Ray (2010)[3]finds that Indian stock market is efficient in semi strong form with respect to bonus issue announcement. He also finds change in liquidity from pre to post announcement period for bonus issue. Mishra et al (2010) [4] provide the evidence for greater volatility and weak form inefficiency of the market in India. Ghatak (2011) [5] findings confirm that Indian Capital Market is semi-strong in nature for Efficient Market Hypothesis (EMH) point of view.

Credit rating announcements are used to examine the information contents of rating in many nations. Prior researchers provide supporting evidence that credit ratings convey useful information to the market in reducing value uncertainty of the issuing firms as well as information asymmetry in the IPO markets. Matolcsy and Lianto (1995)[6]provide evidence on the information content of bond revisions by controlling for the information content of concurrent annual accounting income numbers and testing the incremental information content of bond rating revision. They indicate that only the announcement of bond downgrades has incremental information content. Richard et. al. (1999)[7] tested all bond features and find significant informational content of ratings from the two rating agencies. They conclude that the market finds value in the ratings from each agency, but that the value is not symmetrical between the two agencies. They also opine that there is not enough evidence that the market values one agency over the other.Kliger and Oded (2000)[8] test whether bond ratings contain pricing relevant information. They find that rating information does not affect firm value, but that debt value increases (decreases) and equity value falls (rises) when Moody's announces better- (worse-) than-expected ratings. Elayan et al. (2003)[9]find significant market reaction largely accrues to firms not cross-listed in U.S. markets. They suggest credit rating agencies act as substitute information providers for firms followed by relatively few analysts. Rao and Ramachandra (2004)[10] evaluate the response of stock prices and volumes to bond rating changes in India. They found that stock price incorporates the factors that lead to rating revisions. They also report that upgrades are received cautiously by the investors with no significant abnormal returns where as downgrades are perceived as bad news by investors with significant negative abnormal returns. Yi and Donald (2006)[11] show that initial loan ratings and upgrades are not informative, but downgrades are. They also find that the market anticipates downgrades to some extent. They also find that ratings are related to loan rates, given the effect of other influences on yields, suggesting that ratings provide information not reflected in financial information. Further they opine that ratings may capture idiosyncratic information about recovery rates, as each of the agencies claims, or information about default prospects not available to the market.Poon and Kam (2008)[12] examine the certification effect of initial rating announcements and the signalling effect of rating downgrade announcements in China. Consistent with the prior literature, they also find some negative

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signalling effects in their rating downgrade. Contrary to the Chinese market they find that credit ratings in China have information content. Further they opine that a normally positively biased rating agency gives a low rating, it is valuable news to market participants.EE (2008)[13]investigates finds that S&P Credit Rating Agencies provide significant new information to investors for Non-USA domiciled corporations. Behr and Andre (2008)[14] investigate Japanese stock market reaction to unsolicited ratings and changes in unsolicited ratings and find that the stock market reacts negatively. Their results reveal that unsolicited ratings convey new information to the stock market and that investors react to this information. They opine that unsolicited ratings are based on publicly available information only and the stock market seems to be inefficient in processing this information for Japanese companies.Heng and Kam (2008)[15] suggest that credit ratings convey useful information in reducing value uncertainty of the issuing firms as well as information asymmetry in the IPO markets. An and Kam (2008)[16] examine the effects of credit ratings on IPO pricing. They provide evidence that credit ratings convey useful information in reducing value uncertainty of the issuing firms as well as information asymmetry in the IPO markets. Chan et al. (2009)[17] opines that small firms have less publicly available information and the current stock prices may not fully reflect the current operating performance of the rated firms. They sate that the subscription-based credit rating agencies release their credit reports to their clients, more information is injected into the market.

A few researchers records that there is no new information in the announcement of CRAs and market is efficient in processing new information. In the context of insurance sector, Singh and Power (1992)[18] observe that rating changes are found to convey no information to the capital market. They also argue that the absence of stock price reactions in response to rating changes are a non-event in terms of new information conveyed to the market.Pinches and Singleton (1978)[19] examine how stock prices adjust to bond rating changes in U S. They argue that the informational content of bond rating changes is very small and the stock markets are efficient in processing this type of information for both bond rating increase and decrease. Norden and Martin (2004)[20] find that markets not only anticipate rating downgrades but also review for downgrade by all three agencies. Chan and Yung (2011)[21] examine the impact of credit ratings on long-term IPO pricing. They find that the provision of credit ratings prior to IPO reduces information asymmetry and improves market efficiency. Further they opine that the increase in disclosure through credit ratings can reduce information risk and price discounts. They also reveal that IPOs with (without) credit ratings are less (more) underpriced and more positively (negatively) perceived by outside investors. They also find that market reactions for rated IPOs are more immediate and more complete (as the result of improved transparency), while long-term performance is insignificant when information asymmetry is reduced.

Credit rating is criticised by analysts and other aggravated parties for various reasons. Mora (2006)[22] questions the view that credit rating agencies aggravated the East Asian crisis by excessively downgrading those countries. Bozovic et al. (2011)[23]opine that the failure of credit rating agencies to properly assess the risks of complex financial securities was instrumental in setting off the global financial crisis. Mahlmann (2011)[24] shows that firms with longer rating agency relationships have better credit ratings. He also finds that firms with

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longer relationships having higher average ratings and do not have lower default rates. Adikesavan, (2011) [25]observes that the big three ratings firms have always got it wrong. In the light of their observation, they suggest to establish an Asian credit rating agency to counter big three's in the international market. They also raise objection about the Moody's sovereign rating. Indiresan (2011) [26] reports that credit rating agencies gave AAA ratings, which collapsed within days of receiving such extraordinary ratings. Further he opines that rating agencies commit mistake but they would not admit it.

VI. Information Content of CRAs Announcement:

Table No.1
AARs before the Announcement of Rating.

	CRISIL		CARE		ICRA		FITCH	
Day	AAR	z-Value	AAR	z-Value	AAR	z-Value	AAR	z-Value
-30	0.0023	0.58621	-0.004	-1.6518	-0.005	-0.9336	-0.001	-0.1436
-29	-0.004	-0.8803	-0.005	-1.9237	0.0051	1.04567	-0.01	-1.2516
-28	0.0024	0.60897	0.0017	0.65266	-0.004	-0.737	-0.011	-1.2984
-27	-9.00E-04	-0.2189	-0.003	-1.1594	0.004	0.81932	-0.018	-2.1482
-26	-9.00E-05	-0.0218	-5.00E-04	-0.1746	-7.00E-04	-0.1351	-0.001	-0.1641
-25	0.0004	0.09878	-1.00E-03	-0.3728	0.0033	0.6737	-0.011	-1.3692
-24	-0.006	-1.4289	-0.003	-1.115	0.001	0.2089	4.00E-04	0.0476
-23	0.0054	1.36157	0.0002	0.08643	0.0081	1.66828	-0.005	-0.673
-22	0.0011	0.28438	-0.003	-1.0925	0.0029	0.58745	-0.009	-1.0823
-21	-0.005	-1.2753	-0.003	-1.1646	-0.005	-0.9856	-0.006	-0.784
-20	0.0003	0.07774	0.0041	1.55389	-0.002	-0.3104	0.01	1.18403
-19	-0.005	-1.1388	0.0023	0.86117	0.0045	0.92946	0.003	0.38874
-18	0.01	2.49436	-0.002	-0.5816	-0.004	-0.7876	0.006	0.73267
-17	-4.00E-04	-0.0995	0.0018	0.67339	0.0006	0.11403	-0.014	-1.7709
-16	-0.001	-0.3309	-0.002	-0.6542	0.0052	1.06485	0.002	0.24523
-15	-8.00E-04	-0.1942	-5.00E-04	-0.1729	-0.005	-1.0992	0.001	0.15677
-14	0.0049	1.22497	0.0033	1.24521	-0.009	-1.797	-0.01	-1.2029
-13	-0.003	-0.8383	-0.002	-0.6637	0.0033	0.68061	0.009	1.06953
-12	0.003	0.75608	0.0013	0.50576	0.0014	0.29137	-0.002	-0.2119
-11	-0.001	-0.3161	0.0009	0.32799	-0.008	-1.7005	-0.003	-0.3581
-10	-0.007	-1.7954	-0.003	-1.1926	-0.006	-1.3151	-0.011	-1.3534
-9	-0.004	-1.1057	0.0002	0.05817	0.0003	0.06305	0.018	2.20291
-8	0.0019	0.47195	0.0003	0.12565	0.008	1.64979	0.004	0.43229
-7	-0.002	-0.6054	0.0005	0.18443	-0.014	-2.914	0.003	0.3768
-6	0.0043	1.07866	-8.00E-04	-0.305	0.0033	0.68105	0.012	1.45293

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-5	-0.001	-0.3051	0.0026	1.00469	0.0056	1.15772	-0.012	-1.4788
-4	-0.005	-1.1661	0.0033	1.246	0.0057	1.16368	-0.002	-0.2815
-3	-1.00E-03	-0.2402	-0.004	-1.6647	-0.002	-0.3165	0.006	0.68956
-2	0.0025	0.63375	-0.006	-2.4048	-0.009	-1.9463	0.003	0.36956
-1	-4.00E-04	-0.0989	-5.00E-04	-0.2046	0.0263	5.42489	-0.002	-0.2502

* The critical value of z @ 5 % is 1.96

AARs are negative for 18 days and positive for 12 days before the announcement of CRISIL ratings. AARs are significant for one day before the announcement of CRISIL rating.AARs are negative for 17 days and positive for 13 days before the announcement of FITCH ratings. AARs are significant for one day before the announcement of FITCH rating.AARs are negative for 17 days and positive for 13 days before the announcement of CARE ratings. AARs are significant for one day before the announcement of CARE rating. AARs are negative for 17 days and positive for 13 days before the announcement of ICRA ratings. AARs are significant for immediately preceding the day of announcement of rating. This result indicates that AARs are negative for majority of the days before the CRAs rating announcements.

Table No. 2

AARs after the Announcement of Rating.

Day	AAR	z-Value	AAR	z-Value	AAR	z-Value	AAR	z-Value
0	0.004	1.12	-6.00E-04	-0.248	0.0014	0.27812	0.0062	0.75866
1	0.002	0.419	-0.005	-1.773	0.0089	1.82614	0.0001	0.01444
2	-0.007	-1.66	-0.003	-0.989	0.0036	0.7505	-9.00E-04	-0.115
3	-0.001	-0.33	-0.002	-0.925	-0.003	-0.6713	-0.013	-1.6342
4	0.004	1.042	-0.008	-2.96	0.0035	0.71376	-0.002	-0.2407
5	3.00E-04	0.082	-5.00E-04	-0.192	0.0044	0.91383	-0.003	-0.3755
6	0.001	0.281	-0.002	-0.755	-0.001	-0.2513	-6.00E-05	-0.0075
7	-0.002	-0.62	-0.002	-0.926	-0.009	-1.8159	-0.006	-0.7056
8	0.001	0.322	-0.003	-1.102	0.0041	0.84197	0.012	1.46747
9	-0.003	-0.87	0.0066	2.5058	0.0034	0.7086	-0.002	-0.2252
10	-0.006	-1.49	-0.003	-1.22	0.0049	1.01904	0.0107	1.3068
11	-0.001	-0.25	-6.00E-04	-0.241	-0.009	-1.8384	-0.004	-0.4729
12	0.005	1.354	5.00E-05	0.0186	0.0032	0.65831	-0.005	-0.6744
13	0.002	0.471	-0.002	-0.613	0.0011	0.23259	-0.002	-0.301
14	0.007	1.65	-7.00E-04	-0.252	0.0065	1.3324	0.0015	0.1832
15	2.00E-04	0.043	0.0039	1.4886	-0.003	-0.5862	0.0085	1.04701
16	0.005	1.341	0.0006	0.2455	-0.006	-1.1757	0.0059	0.72097
17	-5.00E-04	-0.13	0.0003	0.1273	-0.006	-1.279	0.0034	0.41853
18	-0.003	-0.68	-0.002	-0.8	-0.005	-1.0517	-0.003	-0.3623
19	-0.005	-1.3	-4.00E-04	-0.164	0.0081	1.67819	-0.007	-0.8147
20	0.005	1.149	-0.002	-0.777	0.0007	0.1352	0.0038	0.46043

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21	-6.00E-04	-0.15	0.0013	0.4817	-9.00E-04	-0.1837	0.0044	0.54393
22	-0.003	-0.82	0.0035	1.3514	0.0074	1.52346	-3.00E-04	-0.0314
23	0.009	2.149	0.0034	1.3123	-0.004	-0.7304	0.0074	0.90312
24	-0.005	-1.21	-4.00E-04	-0.163	-0.006	-1.2206	-0.006	-0.7689
25	-0.002	-0.54	0.0015	0.5605	-0.004	-0.8283	5.00E-05	0.0067
26	0.002	0.593	-0.005	-1.781	0.002	0.41535	-0.008	-0.9709
27	0.005	1.296	0.0021	0.8015	-0.002	-0.398	0.009	1.10326
28	0.004	1.079	-9.00E-04	-0.336	0.0126	2.59419	0.0064	0.78414
29	-0.01	-2.44	-0.002	-0.927	-0.004	-0.7227	0.0115	1.4147
30	0.008	1.909	0.0024	0.9015	-0.007	-1.5006	-0.001	-0.1764

* The critical value of z @ 5 % is 1.96

AARs are negative for 15 days and positive for 15 days after the CRISIL rating announcements. On the day of CRISIL rating announcement the AAR is positive and insignificant. They are negative for 19 days and positive for 11 days after the CARE rating announcements. On the day of CARE rating announcement the AAR is negative and insignificant. It is negative for 15 days and positive for 15 days after the ICRA rating announcements. On the day of ICRA rating announcement the AAR is positive and insignificant. They are negative for 17 days and positive for 13 days after the FITCH rating announcements. On the day of FITCH rating announcement the AAR is positive and insignificant. It is negative for larger number days for the whole period irrespective of CRAs and insignificant for entire event period.AARs started fluctuating before the announcement of CRAs rating and the same trend continued even after the announcement. The movement of AARs during the eventperiod reveals that the share price movements persist after the announcement of ratings.

Table No. 3

CAARs for Various Window Periods

	CRISIL		CARE		ICRA		FITCH	
Event Period	CAAR	z Value	CAAR	z -Value	CAAR	z Value	CAAR	z Value
-30 to +30	0.005674	0.095135	-0.04006	-1.0401	0.022403	0.37057	-0.02622	-0.49054
-25 to + 25	-0.00435	-0.07302	-0.02542	-0.6601	0.02023	0.334628	-0.00298	-0.05575
- 20 to + 20	0.004589	0.076944	-0.00203	-0.0527	0.000656	0.010859	0.003753	0.070214
-15 to +15	-0.00377	-0.06313	-0.02639	-0.6852	0.020082	0.332181	0.013361	0.249969
-10 to +10	-0.01932	-0.32398	-0.03069	-0.7968	0.038661	0.639504	0.019594	0.366585
-5 to +5	-0.00199	-0.03339	-0.02382	-0.6185	0.045133	0.746555	-0.02073	-0.38791
-4 to +4	-0.0011	-0.01848	-0.02595	-0.6737	0.035074	0.580163	-0.00562	-0.10513
-3to +3	-0.00061	-0.01016	-0.0215	-0.5573	0.025957	0.429364	-0.00136	-0.02548
-2 to +2	0.001666	0.027929	-0.01469	-0.3815	0.030754	0.508704	0.006337	0.118566
-1 to + 1	0.005751	0.096432	-0.00582	-0.1511	0.03656	0.604756	0.004262	0.079738

* The critical value of z @ 5 % is 1.96

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CAARs are negative and insignificant for larger event period except for the periods -30 to +30 and -20 to +20 for CRISILs Announcement. It is positive and insignificant for the event periods -30 to +30 and -20 to +20. CAARs are positive and insignificant for very shorter event periods except for the periods -2 to +2 and -1 to +1for CRISILs Announcement.CAARs are negative and insignificant for larger and shorter event periods for the announcement of CARE ratings.Interestingly we find positive insignificant return for the announcement of ICRAs ratings. CAARs are negative and insignificant for larger event periods except for -20 to +20 and -15 to +15 periods for the announcement of FITCH ratings. CAARs are positive and insignificant for very shorter event periods for the announcement of FITCH ratings. It is negative and insignificant for shorter event periods for the announcement of FITCH ratings.

VII. Conclusion:

Investors and analysts need information to take appropriate investment decisions. Non-availability of market related information is common problem in the financial market. Investors and participants in the market depend on the publicly available information for their decisions. Investor can't make abnormal return in an efficient market using publicly available information in the market. Absence of information is a common problem and they search for price relevant information from different sources. It is assumed that CRAs will provide price reagent information and they claim that they provide new information which is not available in the public domain.This study examines the information content on credit ratings published by Indian CRAs using event study methodology. The results of the study reveal insignificant market reactions to the announcement of CRAsratings. This result indicate that there is no information content in the announcement of CRAs ratings and Indian capital market is efficient in processing and incorporating the new information as and when it is published.

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