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Investors' Reaction to Good and Bad News in Secondary Market : A Study Relating to Investor's Behaviour

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Abstract

The stock market is guided by the discounted information passed on from the dealers to the investors. In the face of uncertainty, the worst hit is the individual secondary (stock) market investors. The present paper attempts to analyse the behaviour of the Indian Individual Secondary Market Investors reaction to good and bad news and their effect on the stock market. Taking a wide number of respondents (600 in number) across the country, a simple decision instrument was used to collect information on 15 parameters. When subjected to statistical inferences, three major factors were determined, namely, individual investors' confidence in the market, individual investors' reaction to the market and individual investors portfolio decision. The paper observes that the individual investors have high confidence in themselves and are not guided by the market discounted asymmetric information. However, since their number is less, their influence is not felt. It was also observed that, if the policy makers take these issues seriously they might be able to stop the catastrophic fall in market indices by changing the asymmetric information in favour of the individual investors.

1. Introduction :

THE CAPITAL MARKET behaviour across the globe had been erratic. Apparent steadiness of the market is often shattered by slight disturbances in the socio-economic environment of the sovereign in which a specific stock market operates. Such disturbances, which trigger a multiplicative change in the market index, disturb the flow of fund to the corporate sector on the one hand and on the other hand send thousands of investors in the darkest investment failure situation. Apparently, "Market Theories" have tried to explain the variation of the market and its behaviour through linear models where causative conclusions were drawn, indicating strong bondage between efficient portfolio of investment and the structural

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growth of stock market. Despite the effort, it has been found in common exercise, that market agents have taken a predominant place while it comes to discounting information for market movement and taking appropriate investment decision. It is therefore imperative, that a study be conducted on the investment public which tides over the waves of the market and keeps it alive in the face of speculative trends which put the market at stake.

2. Conceptual Framework

The empirical research of the recent past on market behaviour and investor attitude revolves around three main issues, namely agency cost, information asymmetry and market monitoring of investment.

Apart from the classical research on the market, leading to the random walk hypothesis, the subsequent studies reveal the above three aspects, in one form or the other.

Fama (1985) studied that private market investors (primary and secondary) are better positioned than public institutes and creditors to re-negotiate contract terms or exercise control right in the event of a problem in the market or corporate. Rajan (1992) endorsed a similar finding. Miller and Rock (1985) argued in favour of cash dividends being optimal despite tax disadvantage and market information asymmetries. Miller (1987), Brenman and Thakor (1990) argued and supported the same fact.

Kathryan and Warther (1998) observed that the market discounted information in Japan and the USA. They concluded that due to substantial corporate structure differences and agency costs, Japan and the USA have different dividend policies and their impact on the market are different. Similar studies by Kenneth and Poterba (1991) about Japan stock price indicate that market behaviour is sustained by the organisational structure and investment behaviour in Japan. Kenneth and Hess et al (1984) undertook a study on dividend returns and ex-dividend period where the conclusion was safely in favour of market discounted asymmetric information by the investors.

An Indian study by Rao (1997) conducted on the Bombay Stock Exchange index shows that market react in totality and administered prices react the sharpest in this context. Arora and Natarajan (1997) reached a conclusion that if equilibrium with regard to investment has to be reached, then priority assignments amid the goals are to be rather discouraged.

Madhusoodanan (1997) indicates that in the Indian stock market higher risk is not priced hence investment in higher risk will be of no use . This is very telling, as this factor often seem to have influenced the portfolio design of the investors in the market.

Maiti (1997), observed various aspects of the shareholding pattern and came to the conclusion that shareholding is mainly restricted to 10 cities in India and that institutional investors show a loyalty to blue chip companies

leading to an asymmetry in market information as regards investment in stocks.

Various other papers convincingly argue that the investors' decision gets sub-optimal preference in the face of asymmetric information and agency cost estimate. The present study is an attempt to find out in the context of India whether, the investing public (of the secondary stock market) takes independent decision in keeping the market buoyancy or is guided by the asymmetric information, market discounted information and or fat bully attitude of the secondary market agents.

3. Objectives of the Study :

The study is aimed at finding out the reaction of the secondary investing public (other than the market agents and institutional investors) towards their investment in the face of various market discounted information leading to adverse (or good) reaction in the market investment decision.

The following three objectives were ascertained:

1. To find the degree to which the individual market investors react to market discounted information to take investment decisions.
2. To look at the degree of investment confidence the investors pledge on themeselves vis-a-vis the market information and mass reaction
3. To find the nature of the impact on the investment decision of the individual investors' portfolio and its revision.

4. Data Structure :

To conduct the study, 600 random investors with a stable investment portfolio were picked up who traded in active stock in various or at least one of the stock exchanges of India. The period covered under the study was 1995-99, i.e; about five years. The filled in information through a designed instrument was collected over a period of time. A research syndicate helped in conducting the study and the trial run for the statistics were given to ensure the validity of the results.

Table 1.1
Age and Gender-wise Demographic Pattern Investors

Age	No. of Investors	Male	Female
20-30	35	25	10
30-40	110	75	35
40-50	320	240	80
50-60	120	100	20
60 and above	15	15	0
TOTAL	600	455	145

Table 1.2
Region-wise Break-up of the Sampie

NORTH ZONE	NO.
Delhi	40
Chandigrah	60
Lucknow	30
Allahabad	30
Kurukshetra	20
TOTAL	180
SOUTH ZONE	**NO.**
Chennai	30
Bangalore	30
Hyderabad	40
TOTAL	100
EAST ZONE	**NO.**
Calcutta	100
Guwahati	40
Jamshedpur	40
Patna	20
TOTAL	200
WEST ZONE	**NO.**
Ahmedabad	60
Baroda	20
Jaipur	20
Mumbai	20
TOTAL	120

For the purpose of the study, a total of 15 variables were taken which stands as follows:

1. Blue chip stock investment
2. Self decision on blue chip
3. Market discounted information dependence for investment
4. Good performance of stock as criterion for investment
5. Good industry performance for investment decision
6. Reaction/non-reaction to market index movement
7. Index used only for stock evaluation
8. Non-haste/hasty reaction to market index movement
9. Investment with a certain objective
10. Investment decision with a time horizon
11. Self decision and non-broker guided decision

12. Trading in multiple exchange to reduce risk
13. Stable portfolio for investment
14. Revision of portfolio depends on the objective of investment and non-market news
15. Revision of portfolio done only after due consideration and time

The information was collected through a designed instrument which gathered the information on a five-point scale where one was taken for strongly disagree and five was taken as strongly agree.[2]

5. Methodology :

The scaled information was summarised and bivariate analysis was used through SPSS (V.6), to extract the co-relation matrix and conduct a principal factor analysis. SPSS (V.6), extracted three principal factors. In relating to the co-relation matrix, the following attribute has been provided to the three factors:

Factor I: Individual investor's confidence in investment in the secondary market
Factcr II. Individual investor's reaction to bad news in the stock market
Factor III.Individual investment portfolio decision, effect on market

Factor analysis is a statistical tool, which enables to bring in multiple factors that affect a single variable to a few factors, which had direct association to the variable(s). In doing so, it reduces the number of pointers, which leads to a definitive association between the variables or cases.

Factor analysis is carried out in two ways, i.e. R matrix method or Q matrix method. Under R matrix method, the coefficient of correlation is found between each variable. Under one Q matrix method, single direction correlation is determined between the variables or cases. Once the matrix is determined, the least factor is extracted by solving the matrix.

The main statistics extracted are factor loading, h^2, H, eigenvalue, percent of common variance and percent of total variance.

Factor loading: Loading measures which variable is involved in which factor, to what degree and in what direction. They can be interpreted like coefficient of correlation. The square of loading is like coefficient of determination that measures the shared variation between the factors and the variables.

h square: It is the proportion of a variable`s total variation that is involved in the factors. $(1-h^2)$ is equal to the degree to which a variable unrelated to the other variables may be calculated.

H (percentage total variation in the data) explained by all factors.

$$H = \frac{\text{sum of all h squares}}{\text{Number of variables}} \times 100$$

2. See Annex I for the Instrument Inducted

Eigen value : It is the sum of the square of each factor loading.
Percent Common Variation : Eigen value divided by the sum of all h variables or cases. This is expressed per factor.
Percent Total Variation : Eigen value divided by the number of variables or cases. This is also expressed per factor.

The factors have not been rotated because the study did not take varimix into account.

Factor analysis has been used in this study in order to find the commonalties between the principal matrix and the individual variables as also the direction of influence of each variable in the study on the factors.

Table 1.3

Co-relation Matrix of the Factors to Investors Reaction to Good and Bad News

V	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1.0														
2	.60	1.0													
3	-.10	-.10	1.0												
4	.63	.85	.43	1.0											
5	.77	.86	.30	.94	1.0										
6	.50	.84	.30	.93	.79	1.0									
7	.72	.67	.50	.94	.88	.85	1.0								
8	.70	.08	.07	.35	.33	.35	.62	1.0							
9	.41	.05	-.02	26	.11	.43	.46	.87	1.0						
10	.41	.41	.24	.63	.42	.80	.72	.70	.87	1.0					
11	.79	.73	-.15	.72	.68	.81	.74	.67	.69	.79	1.0				
12	.19	-.04	.56	.39	.18	.47	.60	.72	.80	.83	.40	1.0			
13	.90	.82	.14	.89	.95	.79	.90	.57	.36	.57	.85	.29	1.0		
14	.37	.88	.40	93	.82	.94	.78	.07	.12	.57	.61	.27	.72	1.0	
15	.79	.73	-.15	.72	.68	.81	.74	.67	.69	.79	1.0	.40	.85	.61	1.0

Table 1.4

Principal Factor to Investors' Reaction to Good and Bad Market News

Principal factor matrix

Variables	I	II	III	h^2	H
1.	.77	-.011	-.45	.80	93.6%
2.	.78	-.560	-.17	.96	
3.	.24	-.04	.93	.93	
4.	.92	-.32	.21	.99	
5.	.86	-.44	.015	.93	
6.	.92	-.17	.17	.90	
7.	.95	-.03	.23	.95	
8.	.64	.67	-.15	.89	
9.	.58	.79	-.09	.97	
10	.82	.46	-.16	.90	
11	.91	.12	-.35	.97	
12	.55	.67	.50	1.00	
13	.94	-.20	-.17	.94	

14	.80	-.45	.28	.93
15	.91	.12	-.35	.98
Eigen Value	9.523	2.663	1.889	
% Common Variance	68%	19%	13%	
% Total Variance	63.5%	17.8%	12.6%	

5. Contextual Analysis and Interpretation

The factor loading measures which variable is involved in which factor, to what degree and in what direction? Interpreting the above in this line (which is close to correlation coefficient) it has been observed that factor I (Confidence of the investors in independent investment decision) is the highest related to stable portfolio for investment, followed by good performance of the stock as investment criterion and reaction and non-reaction to the market index movement. Variables like industry performance: Investment time horizon and revision of portfolio are also significantly involved in the determination of the confidence of the investment in independent investment decision. It is also heartening to see that market discounted information are hardly of any importance to stable investors in the stock market in India. This is perhaps supported by the low correlation between trading in multiple stock exchanges and non-hasty decision of the investors getting priority and reducing the risk of loss in the market.

The factor loading for the second factor i.e; for reaction to bad news is assuring. On the one hand it has been observed that market discounted information, reaction to market index are poorly and negativly correlated to the other factors such as good performance of a stock, use of index for the purpose of evaluating a portofolio are also negatively related and poor in bonding. This brings out the fact that investors decide about the investment criterion and are hardly fudged by the bad news in the market. It is quite clear that non-hasty decision and multiple exchange trading hedge a stable investor against inappropriate reaction in the face of bad news. This may be due to stable perception and low risk in trading of multiple exchange. The correlation between stable investment objective and reaction to bad news is certainly agreeable especially keeping in mind its poor linkage to confidence factor of investors. It also seems that the investors give high priority to self-decision in the face of bad news. Though the market revises the portfolio faster than required, despite the high confidence of the investors in the face of bad news, the investors take a firm decision on the revision portolio and taking market discounted information from the brokers in order to determine the fate of their investment and portfolio.

The factor loading of the third factor (individual investment portfolio decision effect of market) reveals that individual portfolio decisions are negatively related to blue chip investment, non-haste decision in revising the portfolio and the revision of portfolio only after consideration and time.

This is quite telling as we can presume that the independent investors could have used adequate information in the market to change the portfolio so that their investment does not suffer at the hands of market discounted information. Howsoever, since independent investors show a high degree of confidence both in terms of chips traded and the portfolio they retain (refer factor I and II's loading in this respect), we can safely conclude that the revision of portfolio in the face of adverse news/market discounted news is soon tided over by the individual investors in the long run. This helps in keeping the equilibrium in the market. It may also be noted that individual traders are less in number and hence the magnitude of influence through change of ad-hoc portfolio is not substantial. Hence, the apparent contradiction may be taken as infraction by the investors of the market sentiment.

Despite the fact that all the variables are distinctly unique as shown by the values of h square, it is found that certain factors like stable portfolio, good performance of stock and investment time horizon and self-decision on the blue chip investment shows the highest unique values. The degree to which they are unrelated range from 0% to 0.04%, which is very low. This brings out the fact that almost all the variables are self-explanatory and are highly insensitive to bad news in the market. Conversely, these variables are proactive to good investment decisions and are independent of market information asymmetry.

Both percent common variation among factors and percent total variation within a factor show the highest in the case of factor I i.e, Individual Investors confidence in investment in the secondary market. This indicates that the secondary market individual investors are least effected by the market information as both percent common variation and percent total variation show the degree of collective uniqueness of a factor among the other factors and within a factor under study. The uniqueness decreases in terms of factor II and factor III i.e, reaction to market information and portfolio revision of individual secondary market investors.

6. Some Relevant Observations

The above study has drawn some relevant observations, which are as follows:

1. The Indian Individual Secondary Market Investors (IISMI) are seasoned players and are competent to take their own decisions in the face of market disaster. This is quite unlike that of Japan and the US investors who are guided by market asymmetric information and organisational structure of the firm.
2. Though limited in number, IISMIs have a defined objective in investment and a time horizon which allows them to hedge and spread the risk arising due to bad news reaction in the market.
3. The IISMIs use both blue chip stocks and other stocks in their portfolio depending upon how they use the market information to reschedule their portolio.

4. The market is least affected by the IISMIs portfolio revision and vice-versa.

7. An Eye Opener :

The study in a limited way brings out the power of the IISMIs. Since they are more stable in their non-reaction to bad news, policy deciders might take this up as a good starting point. They may shift the asymmerty of information in the market favourably. This will reasonably reduce the risk of investors in the market and ensure the smooth functioning of the market.

8. Conclusion :

The study was undertaken to understand the degree to which the Indian Individual Secondary Market Investors (IISMI) react to good and bad news in the stock market. The study came to the conclusion that the IISMIs are less reactive to bad news as they invest for a longer period. They also pledge a high confidence on their own investment decision rather than market guided decisions. Being less in number, their portfolio revision does not make a distinct mark on the market. However, if the decision making authorities take a positive look at these non-reactive IISMIs, to bad news in the market, it can be used to make corrective measures in the face of falling market indices by changing the market information asymmetry in favour of the IISMIs.

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Annex-I

Enlisted below are some of the common decisions taken by the individual investors in the secondary market. If you strongly agree put a tick mark under 5 and if you least agree put a tick mark under 1. The points 2, 3 and 4 therefore refer to various levels of agreement starting from somewhat agree, agree moderately and agree to a greater extent. Please tick the relevant box as per your choice. We request you to tick only one box per dicision.

Strongly Disagree---- Strongly Agree

DECISIONS	1	2	3	4	5
I Invest only in good shares					
I decide as to what is the best stock while investing					
I invest in stocks which the market trades because I am dependent on the unbiased investment decision of the market					
I invest in stocks that constantly show good results					
I take investment decision on a particular stock depending upon the performance of the industry to which it belongs					
I do not react to the fall or rise in the price of the stock market					
I take notice of the market index only to see the performance of my stock					
I do not act in haste when there is a crisis in the market to revise my portfolio					
I invest in stocks with a predetermined objective of mind					
I invest in stock with a predetermined time frame of mind					
I execute my own order and not on the advice of the stock broker(s) that I deal with					
I trade in multiple stock exchanges in order to gain the best in the changing market					
I determine a particular investment portfolio and stick to it					
I revise my portfolio as per my investment objective					
I take decision to remove a particular stock when I think it will not perform well in an anticipated future					