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Stock Market Recommendations: Does it Help Investors?

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Abstract

The brokerage firms and financial institutions recommend for buying and selling shares throughout the year. The objective of the paper is to investigate whether there is any scope to earn higher return than the market on the basis of recommendation offered. This paper has considered one eighty five recommendations from twenty firms spreading over a period from November 2005 to February 2007. The investment horizons of these recommendations have been taken as three months and six months. The return analysis of all recommendations for the whole period and in four different sub-periods has been determined. The analysis of beta suggests that average return from recommendation is lower than market return. The risk adjusted returns yielded by recommendation of different firms have been determined on the basis of Sharpe ratio, Trenor ratio, Jensen measure and finally Sortino ratio. It was observed from the analysis that the stock market recommendations might help the investor selectively.

On the basis of the expertise based on in house research and experience many brokerage firms, financial institutions provide recommendations for buying and selling equity shares on a regular basis. There are various types of recommendations. Some firms provide only fee based advice. Some firms provide recommendations as value added service to make their core business like broking or investment banking more attractive. Some firms provide recommendations free of cost. Again there are some firms who provides recommendation primarily as fee based or value added service but those were made public at a later date (after 1 or 2 days). The firms offer free suggestions either as a means of advertisement or to demonstrate their superiority over others firms. There is another cause as well. These firms wish to increase the interest in some particular share of his own holding to increase the price of that particular share for their benefit.

Efficient Market Hypothesis suggests that all the information is instantaneously absorbed in the stock market. Hence, none is in a position to earn higher return than the market continuously. On the contrary, Grossman and Stiglitz (1980) observed the impossibility of informationally efficient markets. They argued that if market prices captured all information about stock prices

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then none would be researching the stock which involves cost. And if no one researches the stock then the stock price can not incorporate the latest information about the company since no traders is bringing information to begin with. So, they opined, so long as information is costly there must always be rewards to researching companies and hence analysts do potentially have an important role to play. In this background, this paper seeks to verify whether there is any scope to earn higher return than the market from the recommendations offered by the different houses for buying shares.

Literature Survey:

There are some important studies regarding stock market recommendations. Long back, Cowels (1933) studied recommendations of 36 forecasters during 1928 and 1932 and demonstrated that recommendations of most analysts' do not produce abnormal return. Greene and Smart (1999) and Liang (1999) found no evidence that the analysts in general did better than the market. On the other hand, Malkiel (1973) found that the analysts won but only slightly. He observed that the stock picking of the analysts did worse than random stock picking in 40% cases. Michaely and Womack (2005) found that the recommendations of the analysts do affect the stock prices permanently.

Bjerring et. al. (1983) observed that the recommendation of a Canadian brokerage house are evaluated by a number of techniques and yields significantly positive abnormal returns even after allowing for transaction cost. Womack (1996) analysed the buy and sell recommendation of US brokerage firms and demonstrated initial return on an average on the basis of recommendation. Liu, Smith and Syed (1990) examines the impact of the "Heard-on-the street" column of the Wall Street Journal on common stock prices and found that the column have an impact on stock prices on publication day. Barber et. al. (2001) demonstrated that following the stock recommendation an investor can earn annual abnormal gross return greater than 4%. Michaely & Womack (2002), on an average the value of analysts on information gathers is modestly justified, since their pronouncement move stock prices to a new price equilibrium and hence the authors concluded that the analysts make the efficiently priced. There is dearth of literature on this issue in Indian Context. However, recently, Chakrabarty (2006) based on around two thousands recommendations from 26 brokerage firms, found that in India broker's recommendation could predict winner and losers at least over a four month forecast window. He further concluded that 'strong buy' recommended stocks continue to do significantly better than the market for what appears to be as long as about three months and then stabilize at the higher price level.

Data & Methodology:

We have restricted our study in 185 recommendations from 20 firms spreading over a period from November 2005 to February 2007. We have considered return from 3- month horizon and 6-month horizon. We have not taken the 1 week or one month horizon considering that as too short a period for an analysis. Again, if a scrip does not move up even within 6 months of its recommendation then the performance for the scrip beyond 6-month of its recommendation might be for some other factors. So, we have not considered any return beyond 6 months.

We could have considered all the price points within 6 months (or 3 months) investment horizon after the recommendation. But, practically return from stock market is the difference between point to point price (difference between sale price and purchase price) of a scrip. In this study instead of taking recommendation on any particular bull period we have taken four different sub-periods.

We conducted return analysis and risk analysis of the recommendation offered by different brokerage firms.

A. Return Analysis:

(1) Determination of overall return from all recommendations
(2) Return from four different sub-periods
(3) Return from Firm-wise recommendation
(4) Comparison with market return: Analysis of beta

B. Risk Analysis:

(1) Analysis of range of return
(2) Comparative Risk adjusted return among different firms

Analysis & Interpretation:

First let us discuss about Return Analysis.

Return Analysis:

Overall return from 185 recommendations during the period of study was just over 11% and 17% for 3 month and 6 month period. The annualized rate is 46% and 35% for 3 month and 6 month respectively. During the period of study, the average risk free rate of return on the basis of 91-day treasury rate at 6.7%. So, the absolute return from recommendation is much higher than the risk free rate of return. However, overall market during the period the period of study should also be taken into consideration to understand whether 'buy & hold' the Sensex would be better than the return from buy on the basis of recommendation. The standard deviation during the 3-month horizon and 6-month horizon was 24 and 50 respectively which shows the degree of risk.

Table-I

Parametre	3-month	6-month
Average	11.569465	17.53067
Annual Return	46.277862	35.06135
SD	24.071589	49.78664
CV	208.06138	283.9973

Overal Result Analysis

A closer look into different sub-period would reveal more detail.

Table-II

Sub-period	Parameter	3month return	6-month return
1.2.07-5.2.07	AVG	11.27184	5.863577
	Annual Return	22.54368	11.72715
	SD	21.36237	23.3384
	CV	189.5198	398.0233
1.6.06-3.7.06	Avg	18.58857	33.07543
	Annual return	74.35429	66.15086
	Standard deviation	23.41538	40.95092
	CV	125.9665	123.8107
2.11.05-23.11.05	AVG	25.48745	36.80887
	Annual	101.9498	73.61774
	Standard Deviation	26.21174	78.13094
	CV	102.8418	212.2612
1.11.06-8.11.06	AVG.	10.9711	3.71788
	Annual return	43.88438	7.43576
	Standard deviation	18.0904	26.05108
	CV	164.8915	700.6971

Sub-Period wise Return Analysis

The average return of 46 recommendations during the period 2.11.05 to 23.11.05 was over 25% and 36 % for 3 months and 6 months respectively. The average return of 54 recommendations during 1.6.06 to 3.7.06 was over 18% and 33% for 3 month and 6 month respectively. The average return of 50 recommendations during 1.11.06 to 8.11.06 was as low as over 10% and 3% respectively for 3 month and 6 month investment horizons. The

average return for 45 recommendations during 1.2.07 to 5.2.07 was over 11% and 5% respectively for 3 and 6 month period respectively.

Analysis of Beta:

The analysis of beta would help us to know whether return during the period is above market return or not.

Table-III

Average Beta 3-month on Sensex	
Parametre	Beta
Mean	0.779123
SD	0.362657
CV	46.5468

Table-IV

Sub-period wise Analysis

Sub-period	Parameter	Beta
1.2.07-5.2.07	Mea	0.8335023
	SD	0.2997584
	CV	35.963712
1.6.06-3.7.06	Mean	0.795175
	Standard deviation	0.3712042
	CV	46.682077
2.11.05-23.11.05	Mean	0.7207304
	Standard Deviation	0.386191
	CV	53.583285
1.11.06-8.11.06	Mea	0.821478
	Standard deviation	0.3753254
	CV	45.689039

The beta of a scrip during a period demonstrates relative movement of share price in relation to stock index

Table-V
Firm-wise Beta

Firms	Beta
Anand Rathi	0.8286
Angel Broking	0.810026
Brics Securities	0.8932
Edelweiss	0.801276
Emkay	0.783956
Enam Securities	0.6506
ETIG	0.5801
Finquest	1.01
Fortis Securities	0.8507
Geojit	0.615733
HDFC Securities	0.815667
IDBI Capital	0.679067
India Infoline	0.809908
Karvy	1.028667
Motilal Oswal	1.2911
Networth Broking	0.864467
Pioneer Intermediaries	0.61378
Phrabhudas Lilladher	0.719529
Religare Securities	0.709
Sharekhan	1.116

On an average, beta of all recommendation commands a value of 0.78. This clearly indicates that the recommendation has underperformed BSE Sensex. During 2.11.05 – 23.11.05, the average beta of shares recommended yield a value of 0.72, where as average beta of share recommended during 1.11.06 to 8.11.06 was 0.82 and again beta of the shares recommended during 1.2.07 to 5.2.07 was 0.83. The average beta does not go beyond 0.83. So, this phenomenon lead us to conclude that even if the average return might appear decent from the return of the recommended shares, the beta is no way better than the strategy of 'buy and hold' of BSE Sensex. Again, the issue of below par market returns lead us to check whether there are recommendations from some firms which yield better return than the market.

Firm-wise Comparison:

Out of twenty firms we are excluding those firms who offered less than three recommendations

during the period of study. We found arithmetically only 2 firms command a beta over 1 during the period of study. However, beta of not a single firm is statistically significant. So firm can not give provide recommeded that yield mal the market return. This again supports the 'buy and hold' policy. However, there might be another way of looking at superior performance. There might be some firms who are good at timing the market. Those firms might yield a lower beta but still would earn a decent return in absolute terms. So, we should check absolute return as well. We would be conducting detailed firm-wise analysis afterwards.

Risk:

We could perceive the risk inherent in the 'buy' recommendation by going through the return figure from buy recommendations by going through the return figure from buy recommendations. Though absolute return for 3 month and 6 month horizon ia above risk free rate of return. Firm-wise return varies widely. From practical point of view, an individual investor can not invest on all the recommended shares by all the firms, so choice of firm becomes essential. We can observe that there were negative return in 3 month horizon and 6 month horizon in several cases. In case of 3 month horizon 67 recommendations (36%) yielded negative return where as in case 6 month 84 recommendations (45%) yielded negative return out of 195 recommendations. If we analyse sub-period wise return we would observe that during 1.2.07-5.2.07 out of 45 recommendations as many as 36 recommendations (i.e. 80%) yielded negative return for a 3 month horizon. Again, during 1.11.06 to 8.11.06, out of 50 recommendations 28 yielded (56%) negative return for a 6 month horizon.

The return from recommendation from different firms varies widely. The extent of risk could grossly be understood with the help of analysis of range of return. In absolute term the return ranges from -14% to 201% for 6 month investment horizon and -3% to 106% for 3 month investment horizon. Among the firms Enam Securities, Geojit Securities, India Infoline, Pioneer Intermediaries and HDFC securities commands a return of at least 40%. The return from recommendations of these firms is statistically significant.

Risk-adjusted performances of recommended shares:

The absolute return from the recommended shares might not be very suggestive unless the risk-adjusted performances are also compared. In the subsequent paragraphs, we would compare the risk-adjusted performances of the recommended shares by different houses from the viewpoint of different established measure. Here, it is considered that the freely available recommendation of shares of each house forms a portfolio.

There are four methods to measure risk-adjusted performances of a portfolio. Those are (i) Sharpe Ratio, (ii) Jensen's measure (iii) Trenor ratio and (iv) Sortino ratio.

Sharpe Ratio: It is one of the very important measures of performance of a portfolio. Sharpe Ratio is the excess return of a portfolio over risk-free rate of return per unit of standard deviation of the portfolio return.

Sharpe Ratio (S) = $(r_p - r_f)/s_p$

Where r_p = average return from portfolio; r_f = risk free rate of return; s_p = standard deviation of return of portfolio

In our study, simple average of the 3-month return of the recommending stocks has been determined. The rate of 91-day Treasury bill has been considered as risk free rate of return. For this purpose, average of Treasury rate at the two extreme days— of the period of study the date of first recommendation i.e. 2.11.05 & the date of last recommendation i.e. 5.02.07 in our study has been considered. The recommendations of a firm are spread over a period. So, portfolio formation in traditional sense is a problem. The standard deviation of return from a portfolio can not be determined. On the other hand, the portfolio formed for the purpose of this study may suggest high average return from a portfolio of a firm but might suffers from the feature that some stocks helped earning very high return whereas there might quite a few stocks that brings high negative return. In this context, it is important to know which firm is more consistent as far as the return of their recommendation is concerned. For this, we have considered an adjusted Sharpe ratio for the purpose. Here, we have considered the standard deviation of return of recommending shares and simple average to get s_{pa}.

Adjusted Sharpe Ratio (S_a) = $(r_p - r_f)/s_{pa}$

Where s_{pa} = standard deviation of return of recommending shares

Table–VI demonstrates the risk-adjusted comparative return from different firms. From the analysis, it is observed that Geojit Securities, HDFC Securuties, Enam Securities & Anand Rathi Securities secured top positions as far as 3 month performances on the basis of adjusted Sharpe Ratio. There are some firms which offered too few recommendations and hence we have not calculated standard deviation and could not get adjusted Sharpe Ratio.

Table –VI
Risk-adjusted comparative return from different firms

Jensen measure: It is also an accepted measure of evaluating the performances of a portfolio in relation to market return.

FIRM	RETURN	S.D.	BETA	SHARPE RATIO	JENSEN MEASURE	TRENER RATIO
	r_p	s_{pa}	$ß_p$	$(r_p - r_f)/s_{pa}$	$r_p - r_f + ß_p (r_m - r_f)$	$(r_p - r_f)/ ß_p$
Anand Rathi	34.84	32.24	0.829	1.028	30.002	33.898
Angel Broking	4.6075	13.71	0.810	0.213	-0.160	-2.648
Brics Securities	13.31	Few data	0.893	NA	8.227	7.342
Edelweiss	9.925	21.19	0.801	0.389	5.191	3.959
Emkay	1.5975	16.79	0.784	-0.005	-3.070	-6.576
Enam Securities	24.735	20.59	0.651	1.119	20.574	27.640
ETIG	15.26	NC	0.580	NA	11.367	14.666
Finquest	-6.14	Few data	1.010	NA	-11.667	-12.765
Fortis Securities	54.656	Few data	0.851	NA	49.734	56.311
Geojit	28.6775	16.84	0.616	1.603	24.649	35.608
HDFC Sec.	59.745	50.51	0.816	1.149	54.957	64.968
IDBI Capital	18.3475	38.17	0.679	0.436	14.078	17.075
India Infoline	26.74	34.29	0.810	0.731	21.973	24.679
Karvy	4.4675	16.57	1.029	0.168	-1.131	-2.221
Motilal Oswal	15.35	Few data	1.291	NA	8.754	6.659
Networth Broking	15.095	30.61	0.864	0.438	10.121	9.651
Phrabhudas Lilladher	-0.965	14.91	0.720	-0.178	-5.388	11.254
Pioneer Intermediaries	13.66	13.66	0.614	0.876	9.639	-10.726
Religare Sec.	-3.62	21.02	0.709	-0.253	-8.003	-14.630
Sharekhan	19.47	Few data	1.116	NA	13.540	11.396

Risk free rate of return :

Date	2.11.05	5.02.07	Annual Average
Rate of 91 days treasury bill (% p.a.) =	5.7364	7.7685	6.75245

Rate of 91 days treasury bill for 3 month = 1.6881125%

Jensen measure $(a_p) = r_p - \{r_{f+} \ ß_p (r_m - r_f)\}$

Where, $ß_p$ = beta of portfolio; r_m = average market return

In our study, beta of all scrips has been determined and simple average is done to arrive at beta of the portfolio.

From Table –VI, it is observed that HDFC Securities, Fortis Securities, Anand Rathi occupies the first three places according to the Jensen measure.

Trenor Ratio: This ratio is referred as reward to volatility ratio. The ratio indicates how much a portfolio earns over a risk-less investment per unit of market risk.

Trenor ratio (T) = $(r_p - r_f)/ ß_p (r_p - r_f)/ ß_p$ Average return of the portfolio – average return of risk free rates)/ $ß_p$ = Beta co-efficient of portfolio

From Table –VI, it is observed that according to Trenor ratio, HDFC securities, Fortis Securities are two top performing recommending firms.

From the above comparative analysis under, it might be concluded that the performances of recommendations of HDFC Securities, Geojit Securities and Anand Rathi are better than other methods in all three methods.

All the above three methods are established method for evaluating portfolio performances. However, all three yardsticks suffers from a limitations. All the three measures discount the portfolio performance for positive variation and negative variation. So, a portfolio with consistent rising trend might rank poorly if its standard deviation is high. Again, a high beta would also penalize the portfolio return — even if the portfolio has overall positive trend sometimes even moving against the negative market trend. To get rid of this problem we have take the help of Sortino ratio. In Sortino ratio, the portfolio performance is penalized only when the standard deviation has a negative bias.

Sortino ratio: The Sortino ratio is the actual rate of return over investor's target rate of return per unit of downside risk. It is modified version of Sharpe ratio. In Sharpe ratio, excess return is determined per unit of standard deviation. That means Sharpe ratio penalizes the portfolio return for both positive volatility and negative volatility. However, Sortino ratio penalizes the negative volatility only by discounting the standard deviation of below the targeted return.

Sortino Ratio (S_o) = (r_p - r_t)/DR

r_t = targeted return

DR= Downside risk

The downside risk is the target semi deviation which implies the square root of the target semi variance (TVS). TVS is the return distribution's lower-partial moment of degree 2 (LPM_2). This can be thought of as the root mean squared under performances, where the under performance is the amount by which a return is below target (and returns above target are treated as under performance is the amount by which a return is below target (and return above target are treated as underperformance of 0). However, for this study we have made a simplification at the time of calculating downside risk.

Target return be consists of risk free return plus a risk premium. The risk premium depends on risk of a particular scrip. Sometimes beta helps in measuring the risk premium. However, an investor target return is stock market specific not always the stock specific. In this study, we have assumed 3% (where risk free rate is 1.7%) as the target return. The problem of determining downside risk in case of Sortino ratio is that how to discount in case there is no negative return. Even if there is single negative return figure then also there is a problem in calculating standard deviation. To overcome this problem, for the purpose of this study we have considered exact figure when it is negative but have taken 1 if the return is positive.

Table-VII

Comparative Performance on Sortino Ratio				
Firm	**Average Return**	**Downside Risk**	**Sortino ratio**	**Rank**
Anand Rathi	34.840	0.000	Not Defined	3
Angel Broking	4.608	7.100	0.226	16
Brics Securities	13.310	0.000	Not Defined	8
Edelweiss	9.925	8.416	0.823	14
Emkay	1.598	9.966	-0.141	18
Enam Securities	24.735	2.535	8.574	9
ETIG	15.260	0.000	Not Defined	7
Finquest	-6.140	6.467	-1.413	21
Fortis Securities	54.656	0.000	Not Defined	2
Geojit	28.678	0.000	Not Defined	4
HDFC Securities	59.745	0.000	Not Defined	1
IDBI Capital	18.348	9.355	1.641	12
India Infoline	26.740	3.964	5.989	10
Karvy	4.468	5.268	0.279	15
Motilal Oswal	15.350	0.000	Not Defined	6
Networth Broking	15.095	5.540	2.183	11
Phrabhudas Lilladher	-0.965	9.338	-0.425	20
Pioneer Intermediaries	13.660	7.668	1.390	13
Religare Securities	-3.620	17.685	-0.374	19
Sharekhan	19.470	0.000	Not Defined	5
SKP Securities	3.113	29.533	0.004	17

Ranking was done on the basis of (rp- rt) if downside risk is zero

Sortino Ratio (S_o) = (r_p- r_t)/DR

r_t = targeted return= Target return assumed at 3% for 3-month horizon

DR= Downside risk= standard deviation of negative returns

From Table- VII, it is observed that the best performing firms here also HDFC Securities, Fortis Securities, Anand Rathi Sec., Geojit Securities. Not a single free recommendation of these firms during the period of our study has produced any negative return. However, these firms recommended few shares. On the other hand, Enam Securities & India Infoline has recommended several shares some of those produced negative return but still they ranked 9th. & 10th. position.

Conclusion: The study seeks to check whether there is anything for the investors from the free recommendations circulated by different brokerage houses and investment firms. From the study, it is observed that return by following 'buy' recommendations might seem to be more than the risk free rate of return. However, analysis of beta suggests us that the average return is lower than the market return. So, the study went on to enquire whether firm-specific recommendation is worthy to follow. We further observed that there are some firms who provide recommendations on the basis of which return above market return could be achieved. Finally, a comparative analysis of risk-adjusted return from buy recommendations of different firms has been conducted. From the study it is observed that the stock market recommendations might help the investors at least selectively. It was further observed that some recommendations of some firms are more rewarding. However, the performances of the firms might not be consistently good or bad over a very long period of time. In fact, the effectiveness of the recommendations depends on the persons behind the recommendations. As soon as the brains behind recommendations shift to other organizations, the performances of the firm and the effectiveness of their recommendations would also change.

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