

T.V. Analyst Recommendations and Investor Activity

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1. Introduction

If sophisticated investors observe an increased buying activity in a particular stock, what should they do? Should they be contrarian and trade against the crowd? The answer to this question depends upon the sophisticated investors' assessment of the reasons why others are buying. They would be wary of selling the stock, if they believe that the other investors are buying based on good news about the stock. On the other hand, if the sophisticated investors can identify an event that causes only temporary price fluctuations, they would be reasonably sure that trading during such an event is unlikely to be driven by information. Then, they can be contrarians without a concern about being on the wrong side of the information.

Prior research, mainly from the U.S, has shown that stock prices tend to move only temporarily following media recommendations and revert to their original level very quickly. Thus, media recommendations could be an event where sophisticated investors do not have to worry about trades being driven by information. Following analyst recommendations from a TV programme, we first examine if the stock price movements are indeed temporary. Then, we go on to analyze the activity of different types of investors following the recommendations.

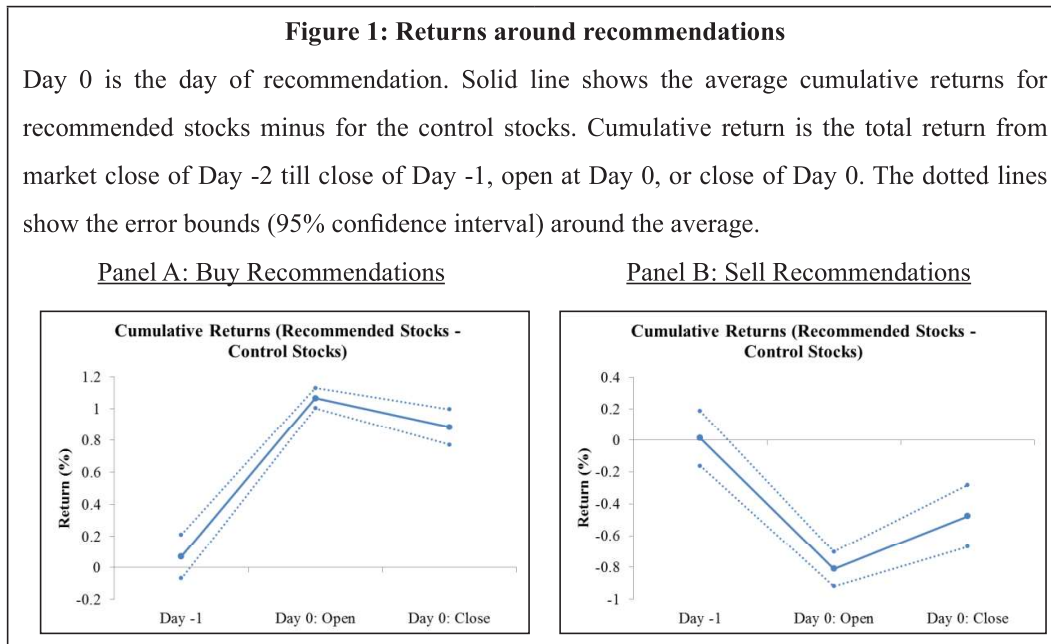
2. Price patterns around TV analyst recommendations

We look at “Buy” and “Sell” recommendations for different stocks made by analysts on a TV programme called “CNBC Awaaz Stock 20/20” from July 2009 to June 2010. We compare the

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recommended stocks to a set of control stocks--similar stocks which do not get recommended on that particular day. We choose control stocks using propensity score matching based on characteristics that explain which stocks are likely to be recommended, characteristics such as past returns, volume and market capitalization. Figure 1 below plots the comparative cumulative returns of recommended stocks vs control stocks around the day of the recommendation.

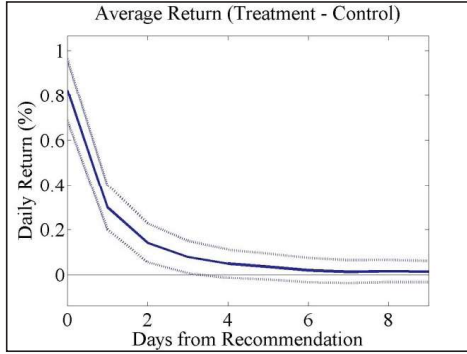


The recommendations are made before trading opens for the day. When the trading opens, a stock with a buy recommendation is up 100 basis points and a stock with a sell recommendation is down 82 basis points. However, prices start reverting the same day. Stocks recommended as a “Buy” fall by 17 basis points and stocks recommended as “Sell” rise by 30 basis points from open to close on the day of recommendation. The pattern of reversal continues and the entire announcement effect disappears within about a week as can be seen from Figure 2 below. This pattern confirms that the analyst recommendations do not result in a lasting effect on the prices and are hence not driven by information.

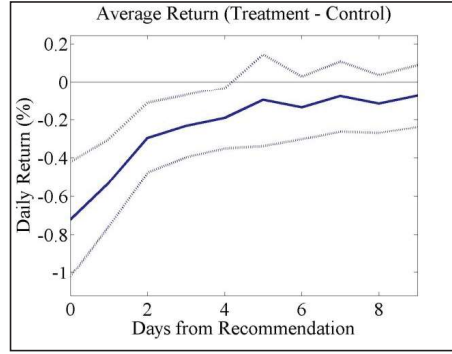
Figure 2: Returns around recommendations

Day 0 is the day of recommendation. Solid line shows the average cumulative returns for recommended stocks minus for the control stocks. The dotted lines show the error bounds (95% confidence interval) around the average.

Panel A: Buy Recommendations



Panel B: Sell Recommendations

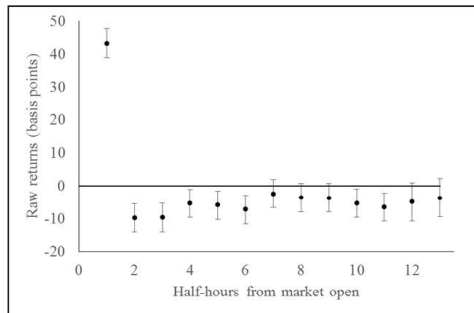


We dig deeper into what happens on the recommendation day. Figure 3 shows the intraday price patterns, again for recommended stocks relative to control stocks.

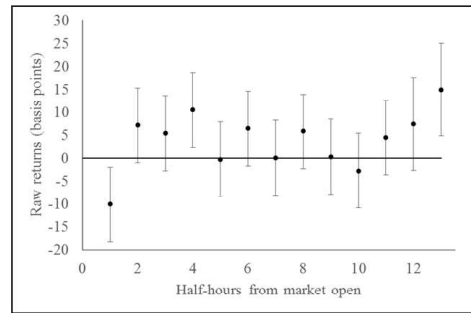
Figure 3: Intraday returns on the recommendation day

Solid circle shows the average returns for recommended stocks minus for the control stocks for half-hour periods. The line shows the error bounds (95% confidence interval) around the average.

Panel A: Buy Recommendations



Panel B: Sell Recommendations

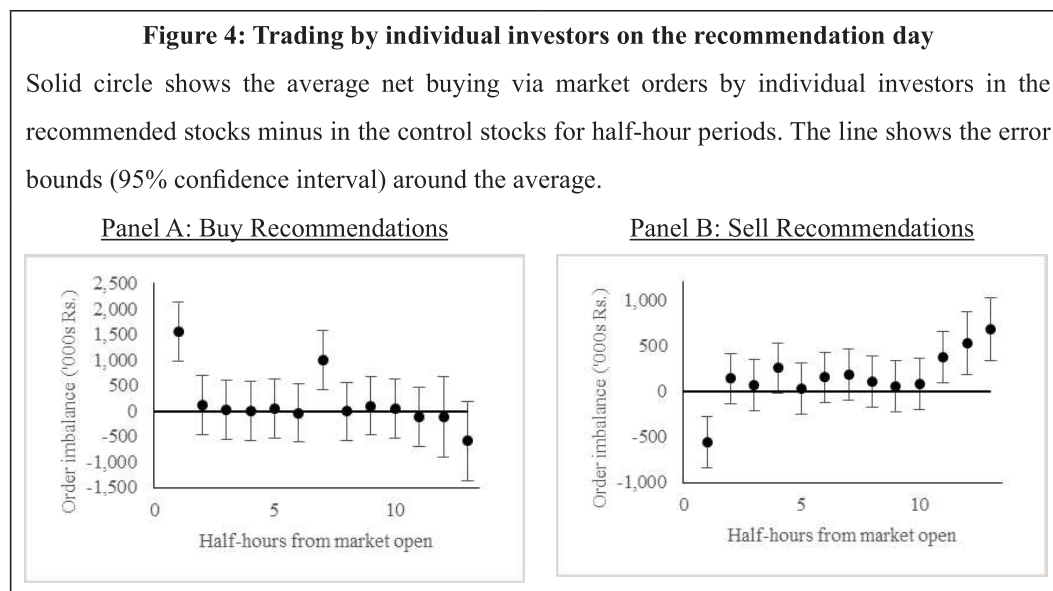


For buy recommendations, after having already opened higher than previous day's close, stocks increase further in the first half hour. Then for the rest of the day, the returns are negative, contributing to the reversal from open to close. Likewise, for sell recommendations, the stock has negative returns in the first half hour and zero or positive returns for the rest of the day.

Given the very quick and complete reversal of the announcement effect that begins on the day of the recommendation itself, those following the recommendations at the opening prices would lose money. Thus, if sophisticated investors observed trading in the direction of the recommendations, they can be reasonably sure that such trading is not driven by superior information. Then they can be contrarians and trade against those following the recommendations. So who is buying the “Buy”s and selling the “Sell”s?

3. Trading in response to recommendations

Figure 4 shows the pattern of trading by individual investors on the day of the recommendation. They aggressively trade in the direction of recommendation during the first half-hour of trading. Their trading is likely to put price pressure and resulting in the patterns seen in Figure 3.



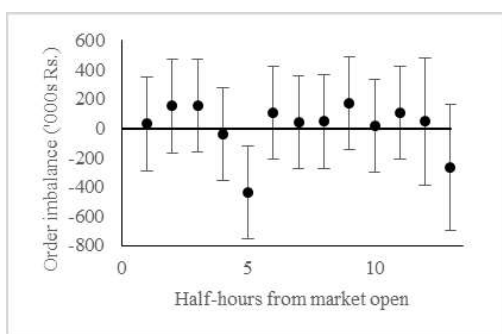
So who are taking contrarian positions against the individual investors? In general, institutional investors are considered sophisticated. Proprietary traders, who follow closely the patterns of prices, volumes and past trading activity, are also likely to be sophisticated. Figures 5 and 6 show the trading patterns of institutional investors and proprietary traders. For “Sell” recommendations, both the institutions and proprietary traders take contrarian positions, by buying significant quantities of the recommended stocks in the first half-hour as the individuals are selling. For “Buy” recommendations, only proprietary traders are active in the first half-hour. The institutions do not take significant contrarian positions.

The different response of institutions and proprietary traders to a profitable strategy following buy recommendation is a result of different constraints they face. Responding to a buy recommendation using a contrarian strategy involves selling or short selling the stock. Institutional investors face greater short sale constraints than proprietary traders. The Securities and Exchange Board of India (SEBI) allows institutions to take short positions, but it does not allow them to square-off intra-day

Figure 5: Trading by institutional investors on the recommendation day

Solid circle shows the average net buying via market orders by institutional investors in the recommended stocks minus in the control stocks for half-hour periods. The line shows the error bounds (95% confidence interval) around the average.

Panel A: Buy Recommendations



Panel B: Sell Recommendations

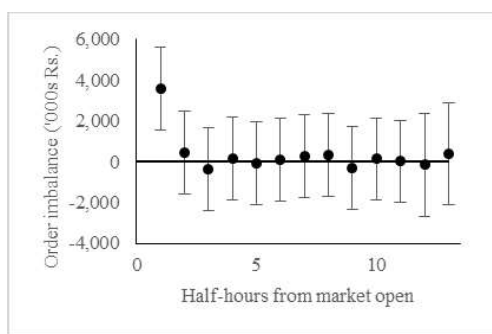
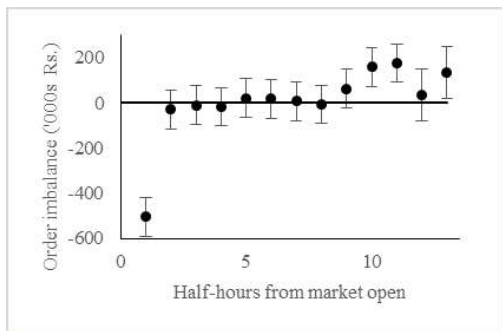


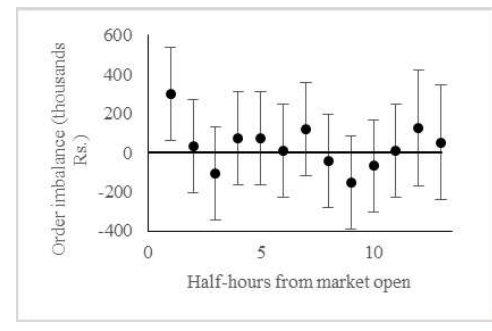
Figure 6: Trading by proprietary traders on the recommendation day

Solid circle shows the average net buying via market orders by proprietary traders in the recommended stocks minus in the control stocks for half-hour periods. The line shows the error bounds (95% confidence interval) around the average.

Panel A: Buy Recommendations



Panel B: Sell Recommendations



positions.² Squaring a short position by the end of the day is easier than carrying it overnight because the former does not require borrowing a stock. Thus, proprietary traders, who can square off positions by the end of the day, are likely to find it easier to short the stock. Therefore, it is not surprising that proprietary traders play a more active role in responding to buy recommendations as compared to institutional investors.

We further investigate if the most aggressive contrarian institutions and proprietary traders – i.e. those with the largest contrarian positions within each category – make money. Institutions are active only following sell recommendations and the most aggressive among them make more money than the least aggressive ones. Interestingly, even though proprietary traders are active following both buy and sell recommendations, they make money only following the buy recommendations when the institutions are not trading. It seems that they are outcompeted by the institutions following “sell” recommendations, who on average take positions that are 10 times larger than that of proprietary traders (Figures 5 and 6).

4. Conclusion

This study establishes that:

- i. On getting a recommendation by a TV analyst, there is a temporary jump in the stock price-up for “Buy” and down for “Sell” recommendations. Almost immediately the prices start reverting and the entire effect disappears within a week.
- ii. Even though it is unprofitable to do so, individual investors act on the recommendation. They buy the stocks with a “buy” recommendation at inflated prices. They sell the stocks with a “sell” recommendation at deflated prices.
- iii. Institutional investors and proprietary traders, being sophisticated, seem to pick on the pattern of price reaction followed by complete reversal. They trade in the opposite direction of the recommendation. But the institutional investors’ ability to sell or buy recommendations is hampered by greater short sale constraints.
- iv. Institutional investors take contrarian positions following “sell” recommendations and make significant profits. Even though proprietary traders take contrarian positions following both “buy” and “sell” recommendations, they make significant profits only for “buy” recommendations i.e. when there is no competition from the institutional investors.

² See Annexure I to SEBI circular MRD/DoP/SE/Dep/Cir- 14 /2007 dated December 20, 2007 for details.