Impact of Analysts' Recommendation on Stock Price

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Abstract: *This paper examines the effect of analysts' recommendations on stock return and liquidity shock. The study covers a sample of large, medium and small-cap stocks traded on the Indian stock market in January 2019. The empirical evidence suggests a reversed outcome of analysts' recommendations on the stock market return over long term.*

Keywords: Stock Recommendation, Arbitrage opportunity, Liquidity Shock, Return.

1. Introduction

Analyst plays an important role in the capital market. As intermediaries for information and analysis, they provide three main quantitative output for investors, earning forecast, stock recommendation and target price. Here we examine the information dissemination role of analyst stock recommendation and its impact on the returns registered by independent traders. Also, this paper examines how price revisions are associated with news and conventional belief of traders and investor as per the past trend. Also if there is a chance for a market participant to identify a liquidity shock which is a deviation of the stock price from its fundamental value due to demand by uninformed investors to generate returns.

I have analysed manually collected data over a period of one month i.e. - January, 2019 from a TV show aired on CNBC Awaaz named "Stock 20/20". The concept of the show provides opportunity to analyse the liquidity shock and short as well as long term impact of the recommendations made by the analyst as these recommendations are made before the start of trading hour of the respective day. The significance and impact of the recommendation in long term can be understood by the fact that more than 90% of the calls made by analysts during the show reversed within two quarters. Supposedly holding contrarian approach on the recommended stocks for long term generates better return.

2. Organizational Framework

2.1. CNBC in India

TV18 Broadcast Ltd. is an Indian digital media-service provider and production conglomerate owned by Network 18 Group based in New Delhi. It owns and operates multiple channels of the NBC Universal group with a wide gamut of viewership from filmed entertainment, news, mobile content to allied business in the different regional language of India, presented by channels such as CNBC-TV18, CNBC Awaaz, and CNBC Bajar among others.

From its inception in 2005, CNBC Awaaz has in no time built a reputation of providing financial and economic news from around the globe and its impact on the Indian market in all-new innovative concept programs. It has a viewership of over 2 million making it the number one channel in the Hindi business-news genre. It focuses on stock-market specific news and business news that covers a wide range of B2B business categories like finance, IT, real estate, energy, aviation, health, and automobile.

2.2. Stock 20/20

In 2009, CNBC Awaaz came up with an innovative concept program to help pick viewers stocks that are perceived to be profitable by their panel of experts, recommending a total of twenty stocks for a trading session. The program is titled as "Stock 20/20" deriving inspiration from the fast T20 cricketing format which is quite popular in India. The recommendations are made prior to the opening of the daily trading session while later in the day a show aired at 3:30 assess the performance of the recommendation made.

The show maintains a strong parallel in term of T20 cricketing format by referring to buy recommendation for stocks as batsman and sell recommendation as a bowler. They also state two dependable stocks which according to them have the highest probability of returning positive return and are mostly referred to as captain of the team. The Marketing head of CNBC Awaaz justifies the concept of the show to be specially tailored as per the viewer's preference.

3. Sample data for Stock 20/20

Here we describe the source of data collected on recommendations, daily stock prices and their respective highs and lows, stock characteristics, and intra-day prices and trading. The data is collected and created manually based on the recorded video uploaded on CNBC Awaaz website and their respective YouTube channel. The data is collected over a span of one month starting from January 1st, 2019 to January 31st, 2019. The experts and host of the show here recommends any number of buy recommendation referred to as batsman or sell recommendation referred to as bowler. On analysis of the collected data, it was noted that experts would pick more batsman on any mentioned trading day as compared to the bowler or sell recommendation.

The data on the opening and closing price for the recommended stocks has been collected from multiple sources including BSE, Yahoo finance and Google finance. After collecting daily intraday price along with its day's high and low, adjusted end day price, stock price after a month later, and after two-quarter analysis on the return and call is made.

The calculation of return is based on the assumption that the trigger price for the buy as well as the sell recommendation is the recommended share price and that all trades are squared by the end of the trading day. This assumption is made keeping in mind that varying returns can be made by an independent trader on the same recommendation based on the time at which the order is triggered, therefore creating multiple cases. One such case can be that for buy recommendation where the order gets triggered above-target price of the recommendation and for the remaining trading hour's stock price gradually decreases, managing to remain above the closing price of the previous day. Although the overall return on the stock from the previous day is positive in reality the individual trader books loss.

Using this data we analyse and calculate profit or loss booked by the individual trader based on the abovementioned assumption.

4. Impact of Recommendation on Price movement

A recent study has examined the role of media in influencing asset prices. The findings are interesting and diverse. Media coverage could either be a source of firm-specific information or a reflection of market sentiment. At the same time, media coverage could also channelize investor attention, thereby lowering the cost of capital.

4.1. Empirical background aiding identify Liquidity Shock

In this study, TV analyst recommendations from Stock 20/20 provides an apt situation to identify a clean liquidity shock. However, before examining the behavior of arbitrageurs in response to the shock, a need to establish that the recommendations truly results in trading behavior unrelated to the fundamental value of the recommended stock. For this, we need to examine if the recommendations have any long-lasting effect on the stock price.

Since the time slot for recommendation is before the start of the trading session it provides a clean empirical setting to study the process of reaction of price to recommendation. The reason being that the information about the recommended stocks is already in the public domain making the market efficient. To test the efficient market hypothesis, a study of the recommendation made during market trading hours is made where for a stock to be recommended as a buy may appreciate in price before the recommendation becomes public. In that case, it would be unclear whether that positive return after the market opening (but before the recommendation) was the cause or the consequence of the

buy recommendation. This lack of clarity may lead to under- or over-estimation of the advisory effect of recommendations. If information leaks, the price appreciation before the advisory should be included in the calculation of the advisory effect. Otherwise, it should not be. The clean setting is of great advantage since it enables us to correctly measure the advisory effect of recommendations, which is crucial. If we under- or over-estimate the advisory effect, we may draw incorrect inferences about whether there is any lasting effect of recommendations.

4.2. Returns generated to buy and sell recommendations

Now, we examine the returns on the stocks that received buy and sell recommendations from the panel of expert. Initially, we examine the return difference for the day before the recommendation. But neither for buy nor sell recommendations, this difference is statistically significant. Here, the critical question is what happens after the recommendation. Our priority is to examine and investigate whether the picks by the TV analysts have any advisory effect on prices or not and if yes, whether the effect is permanent or ephemeral. To answer this question, we analyze the return from the closing price of the previous day, let day -1 to the opening price on day 0 – the day of the recommendation made by the analyst. This return captures the pure advisory effect of the stock being recommended by the TV analysts. As discussed earlier, the timing of the show, all the information generated by the TV analysts recommending the stock is publicly available when the market opens on day 0. We find that a statistically significant positive abnormal characteristic-adjusted overnight return accrues to the stocks with buy recommendations. The overnight abnormal characteristic-adjusted return for sell recommendations is negative. Thus, there is a significant advisory effect. However, the strong advisory effect on prices turns out to be quite temporary. On day 0 itself prices start reverting – the day 0 open to close abnormal return for buy recommendations is negative. The overall abnormal return from the day -1 close to day 0 close is still significantly positive for buys and significantly negative for sells. But if investors followed the recommendations and bought or sold after the market opened, they would incur losses on both types of recommendations.
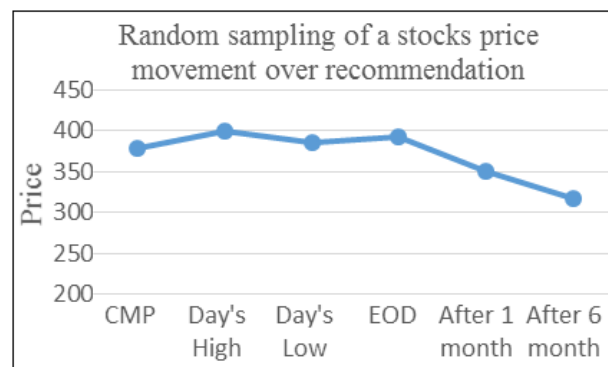

Figure 1: Stock movement around recommendation

Figure 1 shows the spike up on day 0 opening price and reversal by close on day 0. It also shows that the reversal continues. To examine the return pattern over longer horizons we adopt the calendar-time portfolio approach. A calendar time portfolio with a holding period of n days is long in the stocks recommended within the previous n days. We can think of the daily return on the n-day calendar time portfolio as the average of daily returns for the first n days after the recommendations. We see that for buy recommendations, the initial effect completely disappears by the end of the first week. For sell recommendations, the effect lingers a little longer but not much longer. After the reversal, there does not seem to be any price movement. We see that this return is robustly negative and stays negative for more than three months for buy recommendations. For sell recommendations, while the initial return starting from day 0 open is positive and significant, it does not remain so as the subsequent returns turn out to be quite noisy.

To summarize, there is a positive advisory effect following buy recommendation but its starts to revert immediately and completely disappears in about a week or month. Similarly, sell recommendations experience a negative advisory effect and a quick reversal. Thus, the effect is consistent with media creating temporary mispricing in stocks. In our setting, the recommendations do not result in any permanent effect on prices. Thus, we can use any trading in this setting as a clean liquidity shock without any information about the fundamental value.

5. Intra-day returns and profit opportunities

Table 1: Sample data of recommendation and price movement

Stock	Target	CMP	EOD	Return %
Buy Recommendation				
ASHOKLEY	100	94.45	95	0.0058
HERCULES	135	120.05	125.25	0.0433
DELTACORP	275	262	258	(0.0152)
ADORWELD	405	368.8	397.3	0.0772
COCHINSHIP	380	368.35	367	(0.0036)
MIDHANI	150	137.05	138.2	0.0083
TINPLATE	165	151.55	153.9	0.0155
Sell Recommendation				
INDIGO	1075	1104.85	1097.15	0.0070
JETAIRWAYS	235	244.2	242.2	0.0082

Table 1 shows sample data of recommended stock along with their CMP (current market price), EOD (end of day price), Target price and the return generated. On further analysis from Figure 1, it is fairly evident that following a buy (sell) recommendation the opening price is higher (lower) than the closing price of the previous day. It also suggests that the window for maximizing profits from (following up on) CNBC analyst recommendations is rather small. Since the deviation from the "true" price is greatest in the first half-hour, to maximize profits one must create contrarian positions (sell positions for buy recommendations and buy positions for sell recommendations) by the end of the first half an hour of trading. Delaying the creation of the positions beyond the

first half-hour would erode the profit potential as arbitrageurs would lose out on capturing part of the correction.

The price patterns suggest that contrarian trading upon advisory of buy (sell) recommendations can provide profitable trading opportunities. The BSE dataset allows us to examine whether there are traders who deploy this strategy. The dataset provides information on orders placed by individual investors (or retail investors), institutional investors and proprietary trades made by brokers. Given that the CNBC Awaaz Stock 20/20 program is targeted at individual investors, we would expect them to trade in the direction of the recommendation. On the other hand, sophisticated investors like institutions and proprietary traders are likely to be contrarians.

6. Conclusion

On examining arbitrageur activity following a liquidity shock initiated by the analysts' recommendation. The finding in our setting is that TV analysts' pre-market recommendations of stocks results in a temporary advisory effect which is completely reversed in less than a month. We argue that given the quick and complete price reversal, any trading in response to the recommendations can be viewed as pure liquidity shock i.e. one that is not accompanied by any change in fundamental value. Since the concept of the show is to target individual investors, they trade in the direction of the recommendation exerting significant price pressure. Whereas other informed investors may trade in the opposite direction leaning against the price pressure. Such investors profit from their contrarian trades confirming, arbitraging the temporary price discrepancy due to the recommendations for generating better returns.

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Author Profile

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