Emerging Markets Review 23 (2015) 26–45

Contents lists available at ScienceDirect

Emerging Markets Review

journal homepage: www.elsevier.com/locate/emr

Price manipulation, front running and bulk trades: Evidence from India

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ARTICLE INFO

Article history:
Received 16 September 2012
Received in revised form 27 November 2014
Accepted 2 April 2015
Available online 10 April 2015

Keywords:
Bulk deals
Front-running
Average abnormal returns
Cumulative average abnormal returns

ABSTRACT

We analyze the stock price effects of bulk trade in India over the period 2004–2012. Using an event study model we note significant impact of bulk trades on the share prices with cumulative returns being very high around the trades for both BSE and NSE. Buy trade has significant positive cumulative abnormal returns, indicating that buy trades on average increases firm value. Next, we regress cumulative average abnormal returns of different windows on different independent variables. The effect of all the variables considered is found to be higher in the case of buy trades than that of the sell trades.

1. Introduction

Price manipulation and unscrupulous role of brokers in capital markets have historically been a subject of great concern to market participants as well as Governments and have an important impact on market efficiency. For example, Khwaja and Mian (2005) identify brokers in the stock market of Pakistan who manipulate prices through 'pump' and 'dump' schemes and enjoy the benefits at the expense of the outside investors. They further report that due to such manipulations, the brokers earn 50 to 90 percentage points higher annual returns compared to the outside investor. Further, Imisiker and Tas (2013) empirically investigate the stock price manipulation in Istanbul Stock Exchange and show that small firms, firms with less free-float and a higher leverage ratio carry a higher risk of price manipulation. Price manipulation[1] can occur in many ways, from false information to accounting and earnings alteration to stock price manipulation or what Allen and

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[1] Similarly, Aggarwal and Wu (2006) and Comerton-Forde and Putninš (2011) also provide the evidence of stock price manipulations.

http://dx.doi.org/10.1016/j.ememar.2015.04.001
1566-0141/

Gale (1992) term Trade-based manipulation.[2] *Allen and Gale (1992) confirmed that it is possible for an uninformed speculator to make profits from the 'trade-based manipulation' with large traders frequently buying and then selling substantial blocks of stock.*

Price manipulations exist both in developed and emerging markets, and could be a larger issue in emerging markets. Even in a well-regulated mature financial market like the United States of America, Aggarwal and Wu (2006) document empirical evidence of stock price manipulation. In the Indian sub-continent trade-based manipulations are rampant, and can be attributed to poor regulation, weak institutional context and law enforcement capacity (Khwaja and Mian (2005); Khanna and Sunder (1999); Cai et. al. (2006)). In a case study of the Indian Stock Markets, Khanna and Sunder (1999) state that "brokers were also often accused of collaborating with company owners to rig share-prices in pump-and-dump schemes".

In this paper, we provide a pioneer study for the empirical evidence of stock market manipulation by analyzing the stock price effects of bulk trade sales and purchases in India over the period 2004–2012. Almost 80.5% of the total investigations pertaining to stock market scams undertaken by SEBI during the period 2004–2008 are related to market manipulations and price rigging (www.sebi.gov.in, SEBI, 2008). However, very few are indicted and they too enter into legal battles which take years to fruition. Also, no study exists which provides evidence for fraud or otherwise. Allen et al. (2007) find that the ratio between the numbers of investigative actions taken up by SEBI to the number of companies under its jurisdiction was 0.09, which is dismal when compared to Securities and Exchange Commission's 0.52. Therefore the idea of exploring the emerging Indian capital market seems to be quite exciting given that the extant literature in this market is scarce and it is one of the oldest markets in the region.

We use an event study model and measure abnormal returns around the trading date. For the purpose of our study, we would look at large trades as defined by Securities Exchange Board of India (SEBI). More specifically, our study focuses on bulk deals as the results for block deals are insignificant and the number of trades is too few when compared to the bulk deals. Hence, we shall refer to 'large trades' as 'bulk deals' for the most part of the paper, while maintaining the terminology used by the respective researchers in the literature review part. We find significant impact of bulk trades on the share prices with cumulative returns being as high as 7.49% around the trades for both BSE and NSE.[3] This gives a strong evidence of front running before the event. Further, the results for the event study for all the trades for BSE and NSE show that the returns generated in the case of buy trades are more than that of sell trades which is similar to what is reported by Alzahrani, Gregoriou and Hudson (2012). They report asymmetric impact of purchase and sales of large trades. Further, Frino, Mollica and Romano (2012) also confirm that buy trades are relatively more informed than sell trades.

The motivation of conducting this research arises from the fact that identifying manipulation at the right time is critical for regulators. Price manipulation imbalances the free forces of supply and demand and demoralizes the investor confidence by undermining the integrity of prices (Kong and Wang, 2014). Anecdotal evidence from the Indian capital markets suggests that many such price manipulation strategies exist reducing the market efficiency and also indicate the existence of front-running by traders primarily before large trades ("SEBI[4] smells circular trading in Spice Comm rally[5]" or "SEBI cracks down on front-running[6]"). The fact that SEBI has sent more than 500 show-cause notices[7] in the past four years to various brokers, financial institutions and traders regarding these prohibited activities supports the point furthermore. Further, as mentioned by Aktas and Kryzanowski (2014), informed trading is more for larger trades, therefore, we are motivated to study the impact of large trades (bulk deals in our case) on the stock prices.

Next, we examine the results of multivariate analysis for the regression of cumulative average abnormal returns of different windows on different independent variables [size of the firm, quantity traded, price volatility (measures as standard deviation of the returns), cumulative average returns of the last 30 to 10 days, institutional investors, high net-worth individuals, one month MIBOR rate, free float, bullish phase in the economy and a dummy for the exchange (NSE/BSE)] for all trades for both BSE and NSE. We find that the

[2] Trade based manipulation occurs when a trader attempts to manipulate a stock simply by buying and then selling, without taking any publicly observable actions to alter the value of the firm or releasing false information to change the price (Allen and Gale, 1992).
[3] BSE and NSE stand for Bombay Stock Exchange and National Stock Exchange of India respectively.
[4] SEBI stands for Securities and Exchange Board of India.
[5] The Economic Times, 11th February 2009.
[6] The Financial Express, 2nd October 2007.
[7] The number has been compiled from www.sebi.gov.in.