A Perspective on Promoter Ownership and Market Reaction to Corporate News: Evidence from India

Nayanjyoti Bhattacharjee*[1], Anupam De[2]

Abstract:

Corporate governance structures in the wake of observed differences in firm ownership structures in developed markets and emerging market economies are distinct. In this paper, we examine the effect of an ownership structure of firms on the market reaction to corporate news flows in the context of emerging market economies like India. We observe the price and volume movements associated with eight different categories of corporate news flow (Analyst Calls, Earnings, Earnings forecasts, Finance, Legal and Regulatory, Management, Operations and Restructuring) for a sample of firms listed on the National Stock Exchange of India after taking into consideration the extent of promoter ownership in the firm using the standard event study methodology. The magnitude of the price and volume reaction reveals that the market reaction to firm specific corporate news differs according to the type and sentiment of the news flow and the level of promoter ownership in the firm. We also provide a perspective on the relative importance of corporate news flow to the investors for firms with a distinct ownership structure.
Keywords: Corporate News, Corporate Governance, Ownership Structure, Event Study, Abnormal Return, Trading Volume.
JEL Classification: G12, G14.

1. Introduction

The market reaction to firm specific corporate news has been widely researched in finance and economics. In the context of the Efficient Market Hypothesis discussed by Fama (1970), any news or information

1 . Department of Management Studies, Bodoland University, Kokrajhar, Assam, India (Corresponding Author: nayanjyotibhattacharjee@bodolanduniversity.ac.in).
2 . Department of Management Studies, National Institute of Technology, Durgapur, West Bengal, India (anupam.de@dms.nitdgp.ac.in).

flow can potentially lead to a market reaction observed typically in terms of price adjustments to discount the new information having an impact on the value of the firm. A few studies have also examined the volume reaction to new information flow in the light of the observations by Beaver (1968) who pointed out that a price reaction reflects the consensus reaction of the market as a whole while a volume reaction provides insights about individual reaction to such news flow. The literature examining the market reaction to a wide variety of firm specific news is mostly concentrated in the context of developed markets like the US and the UK. However, corporate governance structure in the developed markets is in sharp contrast to emerging market economies. Developed markets are characterized by separation of ownership and management while emerging markets are characterized by shareholder ownership concentration among the promoters (Young et al., 2008). La Porta et al. (1998) observed that concentrated ownership is quite common in most emerging economies. La Porta et al., (1999) observes that controlling shareholders typically yield greater power over firms in excess of their cash flow rights with complex holding structures and participation in management. In emerging market economies like India, many firms are owned by promoters (Shleifer, 2005; Chakrabarti, 2005). Promoter ownership implies relatively concentrated shareholding in the hands of an internal party either an individual or a family that is closely involved with the initiation of the firm even though outsiders may have stake in the firm through ownership of shares of the firm (Kumar and Singh, 2013).The promoters with substantial shareholding in firms exercise control over the management of the firm and policy decisions. Hotchkiss and Strickland (2003) pointed out that the empirical evidence suggests that the argument that share price movements are solely dictated by news flow about fundamental economic factors in a perfect market setting does not hold well in practice. The authors observed that shareholder's identity and their trading practices have an impact on stock prices around the release of corporate information. As Jankengards and Vilhelmsson (2018) points out ownership, structure is important because different owners have different preferences for corporate governance and risks taking. The authors point out further that ownership concentration limits risks taking. In this context, we examine the influence of promoter ownership concentration in firms on the market reaction to a wide variety

corporate news flow in the context of India. Further, Jankengards (2018) shows that ownership structure affects voluntary disclosures by firms and thus, the information environment of the firms. In this context, ownership structure of firms may influence the market reaction to firm specific corporate news flow owing to distinct information environment of the firm and trading practices of the shareholders. In this paper, we provide a perspective on market reaction to firm specific corporate news flow after taking into account the ownership structure of the firm for a sample of firms listed on the National Stock Exchange (NSE) using the standard event study methodology (Campbell et at., 1997). As suggested by Sprenger et al. (2014), we also control for the sentiment of the news by distinguishing between positive and negative news while examining the price and volume reaction to corporate news. Guided by Pritamani and Singal (2001), we take the direction of the event day price reaction to distinguish between positive and negative news. The focus of the study would be the market reaction to the corporate news release on the day of the release of the news, which is the clearest indicator of the impact of the corporate news. Our study provides empirical evidence of heterogeneous market reaction to different categories of positive and negative news flow for stocks after taking into account the ownership structure in the firm respectively in the Indian context. Our paper adds to the existing literature on corporate ownership structure and stock price behavior and extends the literature on market reaction to corporate news flows in the context of emerging market economy by examining the effect of corporate ownership structure on market reaction to corporate news flow in the context of emerging market economies like India.

Previous related studies are discussed in section 2. The methodology and data used for the study are spelled out in section 3 while in section 4, the results of the study are discussed followed by summarization of our findings and suggestions for future research work in section 5.

2. Literature Review
Previous studies, which examine the market reaction to corporate news, is quite extensive as pointed out by Kothari and Warner (2007). Such studies establish that markets indeed react to news flows. While a large number of studies conduct an event study on individual corporate events such as earnings announcement (Ball and Brown, 1968),

dividend announcements and omission (Michaely et al., 1995) or Merger and Acquisition (Mofett and Naserbakht, 2013), only a few papers deal with different corporate news events simultaneously like we do in this paper. The earliest studies which examined the effect of different firm specific news were that of Morse (1982), Ryan and Taffler (2004) and Antweiler and Frank (2006). Morse (1982) studied the price as well as trading volume behavior around news events for a sample of 50 companies and 9 prespecified news categories. The study was limited to company announcements only. Ryan and Taffler (2004) worked with a novel methodology and the authors instead of studying specific pre determined news categories identified major price and volume movements and then associated these to news stories available in the financial press manually to study the relationship between news flows and price and volume movements .The study was done for a sample of UK stocks and the authors worked with 32 news categories. Antweiler and Frank (2006) employed computational linguistic methods and conducted an event study on 48 different types of event using news stories published in the Wall Street journal. However, the study did not control for the sentiment of the news and event windows between 5 and 40 days lead to the problem of confounding events. Sprenger et al. (2014) used Twitter as a data source, employed computational linguistic methods to perform automated content analysis of messages on Twitter, and studied the price and volume reaction to different company specific news for S&P 500 stocks. The authors emphasized the need for controlling for the sentiment of the news and were the first to study the market reaction to different news categories across industry groups. In a more recent work, Neuhierl et al. (2013) found a strong market response to official corporate news releases. Research to investigate the market reaction to different news flows simultaneously is limited in the context of emerging markets. In the Indian context, Chakraborty and Mukhopadhay (2010) attempted to examine the price response to firm specific events relating to technological developments and corporate decisions on joint ventures, merger and acquisition and changes of top executives in the context of Indian capital markets. However, the authors did not study the volume reaction to firm specific events.

In the context of the research on corporate governance and firm

performance, Jensen and Meckling (1976) observed that high ownership may act as an incentive for promoters to pursue value-maximizing goals for the firm and related this to the alignment hypothesis. Shleifer and Vishny (1986, 1988) argues that presence of dominant large shareholder or group with significant controlling ability lead to reduction in agency cost and therefore improve corporate performance. In an opposite view, Demsetz (1983) argued that high ownership concentration may decrease the value of the firm and related this to the entrenchment hypothesis. La Porta et al. (1999) observed that concentrated ownership by any particular shareholder group gives them majority-voting rights, control over the management of the firm and enables them to push their own interest and these may have a negative impact on the corporate performance. In a more recent study, Kumar and Singh (2013) observe a significant positive association of promoter ownership and corporate performance. The study suggested that only above a threshold ownership level of 40 per cent , promoter interest become aligned with that of the firm resulting in positive impact on the value of the firm. Demsetz and Lehn (1985) found a link between ownership structure and measures of firm value. In the Indian context, Nazir and Malhotra (2017) examined the effect of ownership structure on the valuation of the firm using market valuation and price to book value. The authors observed that the non-promoters ownership and non-promoters non-institutional ownership have a significant impact on market capitalization and price to book value of the firm.

In another strand of literature on which we build our study, a number studies have examined the link between firm's ownership structure and stock price behavior. For example, studies by Lakonishok et al.(1992), Sias and Starks (1997), Nofsinger and Sias (1999) and Denis and Strickland (2002) examine the relationship of ownership structure and stock returns and found a significant relationship between abnormal returns and trading volume observed for a firm with its ownership structure. Abarbanell et al. (2003) examine the influence of institutional investors on stock price movements around spin-offs. Hotchkiss and Strickland (2003) examined the effect of shareholder composition on stock returns and trading volume. The authors examined abnormal return and trading volume besides volatility around earning announcements and found each of these to be related with the

characteristics of firm's owners. These studies essentially work with a specific type of corporate news release in isolation and do not reflect the information environment of investors, which involves corporate news release of different nature and significance. In a more recent study, Jankengards and Vilhelmsson (2018) examined the influence of ownership structure of firms on stock return variance.

Our work adds a research to the existing literature, about the effect of ownership structure on stock price behavior in three ways. First, we provide a perspective on the effect of promoter ownership concentration on the market reaction to different types of corporate news flow observed through price as well as volume movements associated with such news flow. Thus, we are able to capture uniquely the market reaction at the aggregate as well as individual investor's level. Second, our work adds to the understanding of the market reaction to positive and negative firm specific corporate news flow in the context of emerging market economies like India, which are characterized by distinct corporate governance challenges from those in the developed markets in the wake of observed differences in firm ownership structures. Third, our study works with different types of corporate news release and thus, reflects the information environment of firms and investors. This allows us to explore the relative importance of different corporate news categories for firms with distinct ownership structures based on the argument provided by Ryan and Taffler (2004) that an important news flow would elicit a large magnitude market reaction.

3. Methodology and Data Collection
3.1 Sample and Estimation of Abnormal Performance
In an event study, the impact of the news is examined by estimating the abnormal return which is defined as the excess of actual return over expected return in the event window associated with such news flow. For the purpose of our study, we define the event window as the day on which a news story or news stories is published in a professionally edited news source for a stock in accordance with Schmitz (2007) who observed that the main price reaction occurs on the day of the initial release of information. Working with a longer event window in the analysis of daily data would inevitably lead to confounding events and

distort the results of our study. The sample of stocks for our study are compiled from the stocks included in the Nifty 50 index , Nifty Midcap 50 index and Nifty Smallcap 50 index at the beginning of our study period . We have 148 stocks as part of the sample for our study after excluding stocks with bonus issue and stock split during the period of our study. We refer to Moneycontrol website, a leading source of business news in India for collecting news stories for all the stocks in our sample between 1st July, 2016 and 30th September, 2016 and financial data for the stocks and the market was collected from NSE website for the study period. The data for reported ownership pattern as on June 30, 2016 by the respective companies in our sample was collected from NSE website. The level of promoter ownership in our sample of firms had high variation with minimum and maximum value in percentage terms being 0 and 80 respectively. The average level of promoter ownership for our sample was 49.34 percent with standard deviation of 19.61. Kumar and Singh (2013) investigated the effect of different levels of promoter ownership on firm value. Below promoter ownership level of 40 percent, the authors found a negative relationship between promoter ownership and firm value and pointed out that the entrenchment effect is pronounced in case of firms with ownership level below the 40 percent. Hence, in the light of the finding by Kumar and Singh (2013), we take the threshold level of 40 percent promoter ownership to categorize firms in our sample into two subsets, namely firms with high promoter ownership concentration (firms with promoter ownership greater than or equal to 40 percent) and firms with low promoter ownership concentration (firms with promoter ownership below 40 percent) respectively. Our sample had 104 firms with promoter ownership greater than or equal to 40 percent and 44 firms in our sample had promoter ownership below 40 percent.

The commonly used OLS market model (Campbell et al., 1997, Ryan and Taffler, 2004 , Neuhierl et al., 2013 and Sprenger et al., 2014) which takes into account the firm's market risks is used to estimate expected return for firm i on day t . The coefficients α (alpha) and β (beta) are estimated by regression of firm i's daily returns on market returns over a prior 120 days estimation window. The approach we adopt is essentially similar to Ryan and Taffler (2004), who obtained a prior period beta estimate for a given firm in their sample from the

London Business School (LBS) Risk Measurement Service (RMS) and used the measure as a proxy to capture the market's ex ante estimate of systematic risks of a firm for their period of study. Our choice of 120 days estimation window is guided by Dyckman et al. (1984), Antweiler and Frank (2006) and Sprenger et al. (2014). The expected return generating model for firm i on day t is given by the equation:

$$ER_{it} = \alpha + \beta\ R_{mt} + e_{it} \tag{1}$$

Where :

ER_{it} is the expected return for i^{th} firm at time t ,

α is the alpha coefficient,

β is the beta coefficient,

R_{mt} is the return for the benchmark index Nifty 50 at time t and

e_{it} is the standard error term.

The abnormal return for firm i on day t is calculated as:

$$AR_{it} = R_{it} - ER_{it} \tag{2}$$

where:

AR_{it} is the abnormal return for firm i at time t,

R_{it} is the actual return for firm i at time t,

ER_{it} is the expected return for firm i at time t.

The daily share price return for each firm is calculated by using logarithmic returns as following Corrado and Truong (2008) and is given by:

$$R_{it} = \log\left(\frac{P_{it}}{P_{it-1}}\right) \tag{3}$$

where:

R_{it} is the share price return of firm i on day t,

P_{it} is the closing share price of firm i on day t,

P_{it-1} is the closing share price of firm i on day t-1.

Likewise, the market return was calculated as follows:

$$R_{mt} = \log\left(\frac{P_{mt}}{P_{mt-1}}\right) \tag{4}$$

where:

R_{mt} is the market return on day t,

P_{mt} is the closing index value on day t,

P_{mt-1} is the closing index value on day t-1.

The market reaction to different categories of corporate news flow is examined by aggregating the abnormal return observations associated with a particular news or event category across our dataset and average abnormal returns is estimated for each of the event categories for each of the two categories of firms in our dataset respectively as:

$$AAR_t = \left(\frac{\sum_{i=1}^{n} AR_{it}}{N}\right) \tag{5}$$

where N is the number of events observed across firms in the sample.

The measure of abnormal trading volume is adapted from Ball and Sivakumar (2008) and Ali et al., (2008). Abnormal volume is estimated by comparing the actual volume observed for a firm on the day of news release with its median volume observed in the preceding 120 days estimation window and is expressed by the equation:

$$AVOL_{it} = \frac{\left(VOL_{it} - \overline{VOL_{it}}\right)}{\overline{VOL_{it}}} \tag{6}$$

where:

$AVOL_{it}$ is the abnormal volume ratio for firm i at time t,

VOL_{it} is the actual daily share trading volume for firm i at time t,

$\overline{VOL_{it}}$ is the median volume for firm i at time t where t is the preceding 120 days estimation window.

We use the median as measure of average levels of volume in the estimation window rather than the mean as the mean is more vulnerable to volume spikes in the estimation window (Bamber et al., 2011). The

choice of 120 days estimation window is again in line with Dyckman et al. (1984), Antweiler and Frank (2006) and Sprenger et al. (2014). We estimate the average abnormal volume (AAV $_t$) associated with a particular category of news event for each of the two categories of firms in our dataset respectively to study the volume reaction to a particular news flow. Our abnormal volume metric is based on the number of trades as suggested by Cready and Hurtt (2002). The authors pointed out that volume-based metrics based on number of trades provide more powerful tests of market reaction to corporate news release than return based metrics.

Guided by Brown and Warner (1985) and De Jong and Naumovska (2016), we test the statistical significance of average abnormal performance (return and volume) for each of the categories of news event using the cross sectional t- test. Brown and Warner (1985) and Dyckman et al. (1984) found the common parametric t-test used in these studies to be well specified while observing the effect of non-normality of daily stock return data on the power of statistical tests and pointed out that the non-normality problem does not affect the power of the tests in short-run events study. The null hypothesis tested is that the average abnormal performance (return and volume) estimated on the event day is equal to zero.

3.2 Classification of News

Extant literature lacks uniformity in classification of news stories into event categories. Morse (1982) worked with 9 event categories while Antweiler and Frank (2006) conducted an event study on 48 news categories. News stories observed during the period of our study are aggregated into 8 event categories namely Analyst Calls, Earnings, Earnings forecasts, Finance, Legal and Regulatory, Management, Operations and Restructuring based on common characteristics though they may differ in details guided by the approach adopted by Neuhierl et al. (2013) and Sprenger et al. (2014) . The event details are specified in the event space (Appendix). Days with more than one news story for a given firm where each news story belongs to a different event type result in the problem of what is known as confounding events in event study literature. We classify such days as confounding events days and exclude such cases, as existing research has not been able to isolate the

impact of different news items on a given day on the abnormal return observed for a firm on the trading day. News items which could not be reasonably categorized into any of the 8 event categories were excluded while reporting the results of the study as any arbitrary categorization would distort the results of the study. Price and volume movement are associated with a news story based on certain preconditions, which were applied as follows:

(i) In line with Ryan and Taffler (2004), news item reported after close of trading hours on a given trading day are associated with a price and volume movement on the succeeding trading day.

(ii) Guided by Ryan and Taffler (2004), it is assumed that analyst calls are a consequence of new information being interpreted by analysts and hence on a trading day where we observe a news item along with an analyst call for a given firm in our dataset, precedence is given to the other news item which is assumed to be trigger for the analyst call.

(iii) If on a trading day, we observe a news story along with a news story related to investor/analyst meetings and presentation, precedence is given to the other news item, which is assumed trigger for the investor/analyst meetings and presentation as they are meant to facilitate greater dissemination of the information to market participants.

4. Discussion of Results

Parts A and B of Table 1 show the price and volume reaction to firm specific corporate news with positive sentiment for firms with high promoter ownership concentration and low promoter ownership concentration respectively.

Table 1: Market Reaction to Positive News

Part A : Firms with High Promoter Ownership Concentration					
Event Categories	**N**	**AAR**	**t –value**	**AAV**	**t -value**
Analyst Calls	633	1.57%	21.67*	0.7	9.95*
Earnings	25	1.79%	5.13*	2.1	2.21**
Earnings forecasts	5	0.67%	2.36**	-0.1	-1.02
Finance	79	1.34%	7.65*	0.4	3.03*
Legal and Regulatory	24	0.79%	3.32*	0.1	1.13
Management	28	1.45%	4.84*	0.3	1.4

Event Categories	N	AAR	t –value	AAV	t -value
Operations	187	1.39%	11.3*	0.4	5.0*
Restructuring	54	1.79%	6.24*	0.7	3.82*
Part B : Firms with Low Promoter Ownership Concentration					
Event Categories	**N**	**AAR**	**t –value**	**AAV**	**t -value**
Analyst Calls	263	1.61%	14.95*	0.6	7.77*
Earnings	13	1.86%	3.87*	1.1	3.35*
Earnings forecasts	6	1.88%	2.71*	0.9	1.26
Finance	73	1.38%	7.59*	0.5	3.24*
Legal and Regulatory	7	0.79%	1.99**	0.3	1.33
Management	9	0.61%	3.66*	0.0	0.63
Operations	89	1.09%	7.19*	0.5	2.95*
Restructuring	32	1.49%	4.82*	0.5	2.16**

Note: * , ** and *** indicates statistical significance at 1% ,5% and 10 % level.

For firms with promoter ownership greater than or equal to the threshold level of 40 percent, we observe a statistically significant price reaction to all categories of news events. On the volume dimension, we observe a statistically significant volume reaction to Analyst calls, Earnings, Finance, Operations and Restructuring. Earnings (AAR=1.79 percent) along with Restructuring (AAR=1.79) was associated with the largest magnitude of the price reaction on the day of the news release among different categories of positive corporate news flow for firms with high promoter ownership. Analysts calls (AAR=1.57 percent) and Management (AAR=1.45 percent) was associated with second and the third largest price reaction and was followed by Operations (AAR=1.39 percent) and Finance (AAR=1.34 percent). Legal and Regulatory (AAR=0.79 percent) and Earnings forecast (AAR=0.67 percent) were associated with the smallest magnitude price reaction among the news categories studied.

For firms with promoter ownership below the threshold level of 40 percent, we observe that the price reaction was statistically significant to all categories of news events. On the volume dimension, we observe a statistically significant volume reaction to Analyst calls, Earnings, Finance, Operations and Restructuring. Earnings forecasts (AAR=1.88 percent) was associated with the largest price reaction followed by Earnings (1.86 percent), Analyst calls (AAR=1.61 percent), Restructuring (1.49 percent) and Finance (AAR=1.38 percent). Legal and Regulatory (AAR=0.79 percent) and Management (AAR=0.61

percent) were associated with a relatively small price reaction.

Part A and B of Table 2 shows the price and volume reaction to firm specific corporate news with negative sentiment for firms with high promoter ownership concentration and low promoter ownership concentration respectively.

Table 2: Market Reaction to Negative News

Part A : Firms with High Promoter Ownership Concentration					
Event Categories	**N**	**AAR**	**t -value**	**AAV**	**t –value**
Analyst Calls	503	-1.18%	-19.23*	0.3	8.44*
Earnings	29	-3.20%	-5.53*	2.2	4.2*
Earnings forecasts	20	-1.24%	-3.56*	0.0	-0.03
Finance	98	-1.39%	-9.05*	0.2	3.22*
Legal and Regulatory	32	-0.95%	-4.03*	0.2	2.04**
Management	19	-1.58%	-3.71*	0.2	1.19
Operations	162	-1.36%	-10.76*	0.3	4.02*
Restructuring	29	-1.10%	-4.39*	0.3	1.48
Part B : Firms with Low Promoter Ownership Concentration					
Event Categories	**N**	**AAR**	**t -value**	**AAV**	**t -value**
Analyst Calls	235	-1.10%	-12.04*	0.3	4.38*
Earnings	11	-3.67%	-2.88*	1.5	2.42*
Earnings forecasts	8	-1.45%	-1.69***	0.1	0.32
Finance	63	-1.04%	-5.83*	0.2	2.03**
Legal and Regulatory	11	-1.83%	-3.43*	0.4	1.04
Management	14	-0.60%	-5.99*	0.2	1.54
Operations	87	-0.92%	-7.29*	0.1	2.43**
Restructuring	23	-1.63%	-3.89*	0.5	2.41**

Note: * , ** and *** indicates statistical significance at 1% ,5% and 10 % level.

For firms with promoter ownership greater than or equal to the threshold level of 40 percent, we observe a statistically significant price reaction to all categories of news events with negative sentiment. On the volume dimension, the news categories associated with a statistically significant volume reaction were Analyst calls, Earnings, Finance, Legal and Regulatory and Operations. Earnings (AAR=-3.2 percent) was associated with the largest magnitude of the price reaction and was followed by Management (AAR=-1.58 percent), Finance (AAR=-1.39 percent), Operations (AAR=-1.36 percent), Earnings

forecasts (AAR=-1.24 percent) and Analyst calls (AAR=-1.18 percent).The bottom two categories were Restructuring (AAR=-1.1 percent) and Legal and Regulatory news (AAR=-0.95 percent).

For firms with promoter ownership below the threshold level of 40 percent, we observe that the price reaction was statistically significant to all categories of news events with negative sentiment. On the volume dimension, the statistically significant new categories were Analyst calls, Earnings, Finance, Operations and Restructuring. The largest magnitude of price reaction was associated with Earnings (AAR=-3.67 percent) followed by Legal and Regulatory (AAR=-1.83 percent), Restructuring (AAR=-1.63 percent), Earnings forecasts (AAR=-1.45 percent), Analyst calls (AAR=-1.1 percent) and Finance (AAR=-1.04 percent). The bottom two categories were Operations (AAR=-0.92 percent) and Management (AAR=-0.60 percent).

5. Conclusion

In this paper, we provide a detailed account of market reaction to different categories of positive and negative corporate news observed in terms of price and volume movements for firms with high promoter ownership concentration and low promoter ownership concentration respectively. The overall pattern of price reaction reveals that the market consensus on the firm value is subject to revision upon arrival of news in the public domain while at the level of the individual investor; the nature of the reaction is heterogeneous as shown by the trading volume reaction for both categories of firms. However, at the detailed level the magnitude of the price and trading volume reaction reveals that market reaction differs according to the type and sentiment of the news flow and the level of promoter ownership in the firm. Case in point would be that of positive Earnings forecasts, which were associated with the largest price reaction for firms with low promoter ownership concentration while for firms with high promoter ownership concentration, the news category was associated with the smallest magnitude of the price reaction. In another instance, we observe that negative Management news category was associated with relatively large magnitude price reaction for firms with high promoter ownership concentration while for firms with low promoter ownership concentration, the reaction was small. Our work confirms market

reaction to corporate news flow in line with extant literature (Ryan and Taffler, 2004; Antweiler and Frank, 2006; Neuhierl et al., 2013 and Sprenger et al., 2014) and extends the literature on firm ownership structure and market reaction to corporate news flow in the context of emerging market economies like India. Consistent with Denis and Strickland (2002) and Hotchkiss and Strickland (2003) , our study shows that ownership structure influence the magnitude of abnormal returns and trading volume corporate news flows and future studies should account for ownership structure of the firm while studying the market reaction to corporate news flow. The findings of the study also provide insights to market participants and market regulators for making informed investment and policy decisions .Our work is not without limitation .We work with a set of 8 broadly defined news category and future studies can be undertaken at a more detailed level to include more event categories. Future research could also be undertaken to cover other emerging markets. Future studies can also work with intraday stock price and trading volume data in the light of the observations by Gross-Klussmann and Hautsch, 2011.

Appendix: Event Details

Serial number	Event type	Event description
1	Analyst calls	Fundamental and technical views of analysts,industry experts, brokerage houses etc. on the company (e.g.Short Canara Bank, Andhra Bank, BoB, PNB: Sudarshan Sukhani)
2	Earnings	Financial results of the company (e.g. Lupin Q1 profit jumps 55% to Rs 882 cr, US biz surges 82%)
3	Earnings forecasts	Forecasts on financial performance of the company (e.g. GAIL Q1 PAT seen up by 9% to Rs 839.1 cr: Religare Research)

Serial number	Event type	Event description
4	Finance	News stories on financial issues such as dividend, debt issue, debt redemption, equity share allotment , preference share issue, share buyback, ESOPs, stock split ,stock options ,capital infusion, FII limit, commercial papers issue, conversion of securities, debt recast, share warrants, QIP, credit rating, interest payment, change in capital structure, offer for sale, share warrants, right issue (e.g. Coal India fixes September 9 as record date for share buyback)
5	Legal and Regulatory	News stories on government, regulatory and legal moves (e.g. Telecom stocks dive up to 4% on DoT demand notice worries)
6	Management	News stories on appointment, retirement, termination, death, resignation and compensation concerning to the management of a company (e.g. ITC appoints Sanjiv Puri as COO)
7	Operations	Labour and HR issues like layoffs, product development and launches, product closures, rate changes for banks, ,periodic operational results, project execution and commissioning, auction results, input pricing, regulatory inspection, tie-ups, joint ventures, partnerships ,expansion plans, investment plans, deals ,contracts, sales, capacity expansion along with regulatory approvals for such activities (e.g. Aurobindo Pharma receives USFDA Approval for Linezolid Injection)
8	Restructuring	News stories on divestment, merger and acquisition, spin offs along with regulatory approvals for such activities (e.g. Bank of Baroda sells 5 percent stake in CIBIL)

References

Abarbanell, J., Bushee, B., & Raedy, J. (2003). Institutional Investor Preferences and Price Pressure: The Case of Corporate Spin-Offs. *The Journal of Business*, *76*(2), 233-262.

Ali, A., Klasa, S., & Li, O. (2008). Institutional Stake holdings and Better Informed Traders at Earnings Announcement. *Journal of Accounting and Economics, 46*(1), 47-61.

Antweiler, W., & Frank, M. Z. (2006). Do U.S. Stock Markets Typically Overreact to Corporate News Stories? *Working Paper, University of British Columbia,* Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=878091.

Ball, R., & Brown, P. (1968). An Empirical Evaluation of Accounting Numbers. *Journal of Accounting Research, 6*(2), 159-178.

Ball, R., & Sivakumar, L. (2008). How Much New Information is there in Earnings. *Journal of Accounting Research, 46*(5), 975-1016.

Bamber, S. L., Barron, O. O., & Stevens, D. E. (2011). Trading Volume around Earnings Announcements and Other Financial Reports: Theory, Research Design, Empirical evidence, and Directions for Future Research. *Contemporary Accounting Research*, *28*(2), 431-471.

Beaver, W. H. (1968). The Information Content of Annual Earnings Announcements. *Journal of Accounting Research*, *6*, 67–92.

Brown, S. J. & Warner, J. B. (1985). Using Daily Stock Returns: The Case of Event Studies. *Journal of Financial Economics*, *14*, 3–31.

----------- (1980). Measuring Security Price Performance. *Journal of Financial Economics*, *8*, 205–258.

Campbell, J. Y., Lo, A. W., & MacKinlay, A. C. (1997). *The Econometrics of Financial Markets*. Princeton: Princeton University Press.

Chakrabarti, R. (2005). Corporate Governance in India: Evolution and Challenges. *ICFAI Journal of Corporate Governance*, *4*(4), 50-68.

Chakraborty, N., & Mukhopadhyay, C. (2010). Stock Price Response to Firm Specific Events: Indian Evidence. *South Asian Journal of Management (Institute of Public Enterprise, Hyderabad, India), 17*(3), 38-52.

Corrado, C. J., & Truong, C. (2008). Conducting Event Studies with Asia-Pacific security market data. *Pacific -Basin Finance Journal*, *16*, 493-521.

Cready, W., & Hurtt, D. N. (2002). Assessing Investor Response to Information Events Using Return and Volume Metrics. *The Accounting Review, 77*, 891-909.

De Jong, A., & Naumovska, I. (2016). A Note on Event Studies in Finance and Management Research. *Review of Finance*, *20*(4), 1659-1672.

Demsetz, H., & Lehn, K. (1985). The Structure of Corporate Ownership: Causes and Consequences. *Journal of Political Economy*, *93*, 1155-1177.

Demsetz, H. (1983). The Structure of Ownership and the Theory of the Firm. *Journal of Law and Economics*, *26*(2), 375-390.

Denis, P., & Strickland, D. (2002). Who Blinks in Volatile Markets, Individuals or Institutions. *The Journal of Finance*, *57*(3), 1923-1949.

Dyckman, T., Philbrick, D., & Stephan, J. (1984). A Comparison of Event Study Methodologies Using Daily Stock Returns: A Simulation Approach. *Journal of Accounting Research, 22*, 1-30.

Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *Journal of Finance*, 25, 383-417.

Gross-Klussmann, A., & Hautsch, N. (2011). When Machines Read the News: Using Automated Text Analytics to Quantify High Frequency News-Implied Market Reactions. *Journal of Empirical Finance*, *18*(2), 321-340.

Hotchkiss, E. S., & Strickland, D. (2003).Does Shareholder Composition Matter? Evidence from Market Reaction to Corporate Earnings Announcements. *Journal of Finance, 58*(4), 1469-1498.

Jankensgard, H., & Vilhelmsson, A. (2018).The Shareholder Base Hypothesis of Stock Return Volatility: Empirical Evidence. *Financial Management*, *47*(1), 55-79.

Jankensgard, H. (2018). Between A Rock and A Hard Place: New evidence on the Relationship between Ownership and Voluntary Disclosure, *International Review of Financial Analysis*, *56*, 281-291.

Jensen, M. C., & Meckling, W. H. (1976).Theory of the Firm: Managerial Behavior, Agency cost and Ownership Structur*e. Journal of Financial Economics*, *3*(4), 305-60.

Kothari, S., & Warner, J. (2007). Econometrics of Event Studies. *Handbook of Corporate Finance, 1*, 3-36.

Kumar, N., & Singh, J. P. (2013). Effect of Board Size and Promoter Ownership on Firm Value: Some Empirical Findings from India. *Corporate Governance: The International Journal of Business in Society*, *13*(1), 88-98.

Lakonishok, J., Shleifer, A., & Vishny, R. W. (1992). The Impact of Institutional Trading on Stock Prices. *Journal of Financial Economics*, *32*(1), 23-43.

La Porta, R. L., De Silanes, F. L., Shleifer, A., & Vishny, R.W. (1998). Law and Finance. *Journal of Political Economy*, *106*(6), 1113-1155.

La Porta, R. L., De Silanes, F. L., & Shleifer, A. (1999). Corporate Ownership around the World. *Journal of Finance*, *54*(2), 471-517.

Michaely, R., Thaler, R., & Womack, K. (1995). Price Reactions to Dividend Initiations and Omissions: Overreaction or Drift? *Journal of Finance*, *50*(2), 573-608.
Moffett, C., & Naserbakht, M. (2013). Stock Price Behavior of Acquirers and Targets Due to M&A Announcement in USA Banking. *Iranian Economic Review*, *17*(1), 105-114.

Morse, D. (1982). Wall Street Journal Announcements and the Securities Markets. *Financial Analysts Journal*, *38*(2), 69-76.

Nazir, N., & Malhotra, A. K. (2017). The Effect of Ownership Structure on Market Valuation of Firms in India: Evidence from BSE 100 Index Companies. *Academy of Accounting and Financial Studies Journal*, *21*(1), 1-11.

Neuhierl, A., Scherbina, A. D., & Schlusche, B. (2013). Market Reaction to Corporate Press Releases. *Journal of Financial and Quantitative Analysis, 48*(4), 1207-1240.

Nofsinger, J., & Sias, R. (1999). Herding and Feedback Trading by Institutional and Individual Investors. *Journal of Finance*, *54*, 2263-2296.

Pritamani, M., & Singal, D. V. (2001). Return Predictability Following Large Price Changes and Information Releases. *Journal of Banking and Finance*, *25*(4), 631-656.

Ryan, P., & Taffler, R. (2004). Are Economically Significant Stock Returns and Trading Volumes Driven by Firm-Specific News Releases? *Journal of Business Finance and Accounting, 31*, 49-81.

Schmitz, P. (2007). Market and Individual Investors Reactions to Corporate News in the Media. *Working Paper, University of Mannheim*. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1004488

Shleifer, A., & Vishny, R. W. (1988).Value Maximization and the Acquisition Process. *Journal of Economic Perspectives*, *2*(1), 7-20.

---------- (1986). Large Shareholders and Corporate Control. *Journal of Political Economics*, *94*(3), 461-488.
Shleifer, A. (2005). Understanding Regulation. *European Financial Management*, *11*(4), 439-451.

Sias, R. W., & Starks, L. T. (1997). Return Autocorrelation and

Institutional Investors. *Journal of Financial Economics, 46*, 103-131.

Sprenger, T. O., Sander, P. G., Tumasjan, A., & Welpe, I. M. (2014). News or Noise? Using Twitter to Identify and Understand Company-specific News Flow. *Journal of Business Finance and Accounting*, *41*(7-8), 791-830.

Young, M. N., Peng, M. W., Ahlstrom, D., Bruton, G. D., & Jiang, Y. (2008). Corporate Governance in Emerging Economies: A Review of the Principal–Principal Perspective. *Journal of Management Studies*, *45*(1), 196-222.