Manager sentiment and corporate merger and acquisition activities

Abstract

Traditionally, decisions taken by corporate managers are seen as driven by any changes in firm’s fundamentals. Although different papers\(^1\) focus on how firms take various corporate finance decisions based on their individual characteristics and other macroeconomic factors, Baker (2009) states that traditional corporate finance is less convincing in explaining features like time series of issuance, capital structure, pay-out policy, and investment. This study aims to explore the issue of behavioural biases in corporate merger and acquisition activities, one of the most important and largest corporate investment decisions\(^2\). Specifically, it investigates whether manager sentiment\(^3\) can explain both aggregate and firm-level merger and acquisition (M&A) activities of firms. The study contributes to the literature by considering a different perspective in mergers and acquisitions research as Jiang et al. (2019) state that there is, surprisingly, little research on manager sentiment given their information advantage about their companies over outside investors. We conduct a textual tone analysis of selected corporate disclosures similar to Jiang et al. (2019) to construct manager sentiment and investigate its impact for the first time, as of our knowledge, on both aggregate and firm level mergers and acquisitions activities.

In the behavioural finance literature, studies such as Baker and Wurgler (2006), Tetlock (2007), Danbolt et al. (2015), etc. provide evidence that investor sentiment plays a role in stock market movement. This stock price movement is also argued to be significantly connected with some corporate actions undertaken by firms. In this regard, Lamont and Stein (2006) show that equity issuance and merger activities are strongly correlated with the aggregate market-to-book ratio and these activities are substantially more sensitive to aggregate stock prices than to firm-level prices. Considering the behavioural view, they argue that sensitivity of this type should arise if a given movement in aggregate prices contains greater proportion of investor sentiment than the same-sized movement in firm level prices. Jiang et al. (2019) find that investor sentiment\(^4\) is positively correlated with the manager sentiment and claim that corporate managers are not

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\(^1\) For example, Mizen and Tsoukas (2013), Korkeamaki (2005), Frank and Goyal (2003), etc.

\(^2\) As stated in Bessler, Drobetz and Zimmermann (2011).

\(^3\) As captured by a index constructed by Jiang, Lee, Martin and Zhou (2019).

\(^4\) The investor sentiment proxies they compared are: a. the Baker and Wurgler (2006) investor sentiment index, b. the Huang et al. (2015) aligned investor sentiment index, c. the University of Michigan consumer sentiment index, d. the Conference Board consumer confidence index, and e. the Da et al. (2015) Financial and Economic Attitudes Revealed by Search (FEARS) sentiment index.
immune from behavioural biases. They find evidence that manager sentiment is a strong negative predictor of future aggregate stock market returns and its predictive power is informationally complementary to investor sentiments. In addition, Baker and Wurgler (2013) and Greenwood and Shleifer (2014) report that managers sometimes can be overly optimistic or pessimistic relative to fundamentals and this behavioural biases lead to irrational market outcomes. Hence, this study investigates whether manager sentiment can also affect M&A activities in both aggregate level and firm level in the US market.

Our analysis starts by examining the relationship between manager sentiment and monthly aggregated M&A value as well as number of completed deals. Several studies such as Weston et al. (2004), Weston et al. (2011), Lin et al. (2009) and Cortés et al. (2017) find neoclassical motives as the main reasons for M&A activities which suggests that firms engage in M&A activities to create positive synergies that increase firm value or firm profitability. Presenting a model of stock market driven acquisition, Shleifer and Vishny (2003) state that neoclassical theory of merger has considerable explanatory power, however, it is incomplete. They propose a theory of acquisition in which the transactions are driven by stock market valuation of the merging firms. Again, stating that merger activity spikes during the high market valuation, Rhodes-Kropf et al. (2005) investigate whether these spikes are the results of valuation error or behavioural mispricing. Under an irrational market interpretation, their results indicate that misvaluation drives merger activity and this view implies that corporate managers sometimes outsmart inefficient markets by purchasing firms with overvalued stock. Although these studies assume managers are rational but markets are inefficient, several other researchers investigate whether behavioural biases of corporate managers act as drivers of M&A activities. Rosen (2006) states that managerial irrationality plays a role in aggregate merger activities. Examining both listed and unlisted firms in US, UK and Continental Europe, Gugler et al. (2012) also find evidence of merger activities as predicted by behavioural theories. Following the implications of managers’ behavioural biases, this study investigates whether manager sentiment has a significant role in explaining market wide M&A activities both in terms of value and number of deals. We hypothesize that during the period of high (low) managerial optimism, market experiences more (less) aggregate M&A activities as Roll (1986) argues that overbearing presumption of managers has influence on them to think that their valuations are correct even if there are actually no gains in takeovers.

In the next stage, we investigate whether manager sentiment has any significant impact on firm level M&A activities. Heaton (2002) states that optimistic managers overvalue their own corporate

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5 The two behavioural theories that they studied are managerial discretion theory and overvaluation theory.
projects and this may lead them to invest in firm value destroying projects. Malmendier and Tate (2008) report that CEOs who over-estimate their ability to generate returns sometimes undertake mergers that destroy firm value. In case of international level, Ferris et al. (2013) find that CEO overconfidence explains different aspects of M&A activities including the method of payment. However, Glaser et al. (2008) state that corporate investment decision processes are rather complex and find that optimism of all insiders has also explanatory power when compared to CEO optimism. Thus, in this study we apply managerial sentiment extracted from both financial statements and earnings call transcript that reflect the optimism level of senior managers together rather than CEO’s sentiment alone. We hypothesize that high (low) level of managerial sentiments lead respective firms to engage in more (less) corporate M&A activities as Baker and Nofsinger (2010, P. 321) state that “excessive optimism follows from overconfidence and involves a belief that future events are more likely to be positive than is realistic”. In this case we also check whether manager sentiment has any impact on the deal payment method.

To analyse the relationship between manager sentiment and aggregate M&A activities, this study uses monthly manager sentiment index from 2003:01 to 2017:12 that is available at the faculty website of Professor Guofu Zhou. The index is based on aggregated textual tone in 10-K, 10-Q and conference call transcripts of the US public limited firms covering all industries except financial and utility industry. Following Jiang et al. (2019), this study also constructs manager sentiment level for individual firms to investigate the micro level impact on individual firms’ M&A activities. We directly collect 10-K and 10-Q positive, negative and total word count for our sample firms from Loughran and McDonald 10X Summaries file which is based on Loughran and McDonald (2011) dictionary and available at Software Repository for Accounting and Finance (SRAF) website, maintained by Professor Bill McDonald. Next, we collect company’s earnings conference call transcript form Standard and Poor’s Capital IQ database and follow Jiang et al. (2019) to construct manager sentiment level for individual firms for the period when firms engage in M&A activities. We also collect mergers and acquisition data for the same period of time from Thompson Reuters’ Securities Data Company (SDC) database. Finally, we collect stock market data and fundamental variable data from CRSP and Compustat database respectively.

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6 Wei and Zhang (2018) investigate how overconfident CEOs communicate with the market and find that overconfident CEOs being optimistic use less negative tone in their 10-K/10-Q filings.
7 Available at http://apps.olin.wustl.edu/faculty/zhou/
8 Available at https://sraf.nd.edu/textual-analysis/resources/#LM_10X_Summaries
Our study contributes to the textual analysis literature by studying aggregated textual tone of selected SEC filings and earnings call transcripts. With the exponential increase in computing power and online availability of different filings and articles\(^9\), research related to textual analysis has recently gained popularity in the academic world. Different researchers attempt to analyse the tone used in different corporate filings and whether these tones can explain various corporate finance decisions. For example, Ataullah et al. (2018) use chairman statements of firms and conduct textual tone analysis to understand the firms' leverage policy. Also, Liu and McConnell (2013) investigate textual tone of newspaper articles to understand whether managers’ sensitivity to the market reaction at merger announcement is influenced by the level and tone of the media attention of the proposed deal. Unlike these studies, we analyse managerial tone embedded in 10-K and 10-Q filings as well as earnings call transcripts to investigate the corporate M&A activities.

Second, our study contributes to the behavioural finance literature by applying manager sentiment index of Jiang et al. (2019) for the first time, as of our knowledge, to mergers and acquisition research. Previously, Yan (2015) analyses textual content of merger and acquisition related SEC filings to investigate whether the use of different managerial tone has any role in merger outcomes. Also, Berns et al. (2019) analyse 10-K financial statements and find that managerial tone changes positively indicate future M&A activity and market response to merger announcement. By applying manager sentiment index, our study covers not only financial statements but also earning call transcripts and captures the managerial tone more comprehensively that better reflects the level of managerial optimism\(^10\).

Lastly, our study contributes to the ‘hubris hypothesis’ literature proposed by Roll (1986) which implies that overconfidence is an important driver of corporate acquisitions\(^11\). Previously, Hayward and Hambrick (1997) finds evidence of CEO’s hubris in explaining the premiums paid for large acquisitions. Malmendier and Tate (2008) also investigate hubris hypothesis and find that firms with overconfident CEO are 65 percent more likely to make an acquisition. We contribute to this hypothesis by studying whether high sentiment leads managers to engage in more M&A activities since optimistic managers may overestimate the synergy gained from mergers and acquisitions.

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\(^9\) As mentioned in Loughran and McDonald (2016).

\(^10\) As Jiang et al. (2019) mention that although both monthly aggregated conference call tone and monthly aggregated financial statement tone capture manager sentiment, the correlation between them is not high indicating that both the disclosures likely contain complementary information about manager sentiment.

\(^11\) Baker and Nofsinger (2010, P. 417) state that “despite the fact that overconfidence and optimism are technically distinct, the two biases are often taken to mean the same thing in the finance literature. In the context of capital budgeting, this turns out to be legitimate, as only information that leads to new investments affects firm value”.
References


Wei, C. and Zhang, L. 2018. The Informational Role of Overconfident CEOs. Available at SSRN 2823716.

