Research in Economics and Management
ISSN 2470-4407 (Print) ISSN 2470-4393 (Online)
Vol. 11, No. 1, 2026
www.scholink.org/ojs/index.php/rem

Original Paper

Can Institutional Analysts Identify Non-financial Information Manipulation? Evidence from China

Shuxin Hao[1]

[1] PICC Property and Casualty Company Limited, China

Received: January 12, 2026 Accepted: February 5, 2026 Online Published: February 26, 2026

doi:10.22158/rem.v11n1p13 URL: http://dx.doi.org/10.22158/rem.v11n1p13

Abstract

Based on the data of Chinese listed companies from 2009 to 2023, this paper examines analysts' ability to discriminate distorted information by examining the sensitivity of analysts' earnings forecast correction behavior to textual readability. The empirical study found that China's securities analysts have a certain screening ability for the non-financial information disclosed by listed companies based on the motivation of interest encroachment. Through robustness analysis, the above conclusion is still significant. The conclusion of this paper provides theoretical reference and policy enlightenment for improving China's non-financial information disclosure system and alleviating the distortion of information disclosure.

Keywords

non-financial information disclosure, information manipulation, analyst earnings adjustments

JEL Classification: G34, G14, G32

1. Introduction

Does non-financial information disclosure affect the stability of capital markets? Theoretically, this question arises from the hypothesis proposed by Bloomfield (2008) regarding whether non-financial information is merely a "Straw Man." If non-financial information consists solely of standardized statements, template-like text, disclaimers, and other trivial details, then even an enhancement of non-financial information disclosure would not impact market stability; in this case, non-financial information disclosure would simply serve as a decorative "Straw Man" for listed companies, warranting little attention. However, if non-financial information is not a "Straw Man," it indicates that non-financial information disclosure should be considered important, and further examination is needed to understand how it affects the stabilizing functions of capital markets. Currently, there is a lack of literature providing systematic evidence on this issue. This article will draw on the ideas from corporate finance, primarily

examining how non-financial information disclosure impacts the stability of capital markets through financial intermediaries.

As a key information intermediary in the capital market, can securities analysts reduce information asymmetry and identify "distorted" information in the market? Early research tended to support the idea that analysts are skilled information processors (Womack, 1996; Barber et al., 2001). In other words, the role of analysts in information production helps to reduce information asymmetry in the capital market. However, recent studies suggest that analysts may face issues such as "conflicts of interest" (O'Brien et al., 2005; Bouchaud et al., 2019), leading to inefficient forecasting behavior. Therefore, a natural question that arises is: Can analysts, as information intermediaries, identify information distortion based on self-serving non-financial disclosures?

This study selects all A-share listed companies on the Shanghai and Shenzhen stock exchanges from 2009 to 2023 as the research sample. By examining the sensitivity of analyst forecast adjustment behavior to management tone, this research aims to assess analysts' ability to detect "distorted" information and investigate whether analysts can identify the motivations behind non-financial disclosures by listed companies. The empirical results reveal: Chinese securities analysts demonstrate a certain ability to identify non-financial information disclosed by listed companies based on self-serving motives. Specifically, there is a significant negative relationship between textual readability discussion and analysis text in annual reports of A-share listed companies and the magnitude of analyst earnings adjustments. This suggests that external analysts can effectively recognize the self-serving motives behind non-financial information disclosures by listed companies.

The potential contributions of this article mainly lie in: (1) In comparison with existing literature, this study directly addresses the question of whether analysts have the ability to discern distorted information by analyzing the sensitivity of analyst earnings forecast adjustment behavior to the management discussion and analysis text tone in the annual reports of listed companies on the China A-share market. While numerous studies have found that analysts play a supervisory role, they have overlooked the role of analysts in identifying distorted information. (2) From the perspective of differences in information identification abilities, this article supplements the research on the capabilities gap between star analysts and non-star analysts. The 2018 scandal involving analyst vote-buying has sparked public and academic debates on whether securities analysts can truly promote the healthy development of the Chinese capital market. The results of this study indicate that the selection mechanism for star analysts needs further standardization to better leverage the motivational role of star analysts. (3) The study expands the pathways through which non-financial information disclosure impacts the capital market. Previous literature has predominantly examined the impact of non-financial information on the capital market from the perspectives of investors and media intermediaries. This research further expands on how financial intermediaries play a role in the mechanisms affecting the impact of information disclosure on the capital market.

The remainder of this study is structured as follows. Section 2 provides a theoretical analysis and research hypotheses. Section 3 describes the research design, detailing the data sources, model settings, and sample selection criteria. Section 4 discusses the main empirical findings. Section 5 concludes the study, emphasizing its policy implications.

2. Hypothesis Development

In recent years, the development of information technology has significantly increased both the quantity and speed of information dissemination. In response to this change, capital markets in developed countries have gradually begun to utilize artificial intelligence and other means to assist in information analysis and the formulation of quantitative trading strategies, allowing for more targeted handling of information and improving decision-making efficiency. At the same time, advancements in information technology have not only transformed the motivations and patterns of information disclosure by publicly listed companies but have also greatly expanded the materials, methods, and tools available to external investors, financial intermediaries (such as analysts), and media intermediaries, fundamentally changing how they acquire, interpret, and even participate in information, thus impacting the stabilizing functions of capital markets.

Existing literature has extensively researched the impact of non-financial information on capital markets through the roles of investors and media intermediaries. For example, non-financial information can influence investors' perception of information (Kravet & Muslu, 2013; Hope et al., 2016) and understanding (Loughran & McDonald, 2014; Davis et al., 2015), which in turn affects their decisions and subsequently impacts the capital markets. Additionally, Tan et al. (2014) demonstrated through experimental research that certain characteristics of non-financial information can create a psychological cue of "reliability" for investors, influencing the judgments of retail investors and consequently affecting the capital markets. For media intermediaries, they can help the market interpret companies' original disclosures in an easily understandable language (Stice, 1991) and provide professional industry and trend analyses, which can also impact investors' decision-making (Fang & Peress, 2009; Bushee et al., 2010; Engelberg & Parsons, 2011; Blankespoor et al., 2018), further affecting the stability of capital markets (Kothari et al., 2009). Recent studies have confirmed that the volume and price reactions in capital markets to corporate information disclosures are significantly influenced by the release of financial news (Guest, 2018), yet there is still controversy regarding the role of media as an information intermediary in China's capital markets.

As market information intermediaries, the effectiveness of analyst forecasts has consistently been a focal point of market attention. Analysts can effectively reduce information asymmetry in the capital market, provided they can identify "distorted" information within the market. However, existing research lacks direct evidence regarding analysts' ability to recognize distorted information. Some studies have examined the market's response to analyst forecasting behavior, arguing that analysts are skilled information processors. For instance, Dhaliwal et al. (2012) found that companies that first disclose social

responsibility reports and perform well attract more attention from institutional investors and analysts, thereby improving the accuracy of analyst forecasts. Merkley (2014) also discovered that non-financial information disclosure leads to more analyst coverage, more accurate earnings predictions, and less forecast divergence. Moreover, Allee and Deangelis (2015), through their study of conference call transcripts, found that analysts actively participate in conference calls and question management's statements, which allows them to make faster and more accurate forecasts. Additionally, Boone and White (2015) found that a higher proportion of institutional ownership promotes management information disclosure, increases analyst coverage, enhances stock liquidity, and ultimately reduces information asymmetry.

Although analysts possess stronger information analysis and processing capabilities compared to ordinary investors, existing research has found that corporate information disclosure still influences analyst behavior, including their level of attention and the accuracy and divergence of their forecasts (Lang & Lundholm, 1996). Due to issues such as conflicts of interest and behavioral biases, analysts may deviate from objectivity and completeness in their research. For example, there is a systematic bias towards optimism in analyst earnings forecasts, with a tendency to issue positive (optimistic) earnings forecasts and stock ratings while overlooking negative information (Bradshaw, 2011). Additionally, analysts face challenges related to underwriting revenue, meeting management's needs, increasing trading commissions, maintaining close relationships with institutional investors, and advancing their own careers. For companies with high institutional investor ownership, analysts may be reluctant to publicly release negative ratings (O'Brien et al., 2005; Bouchaud et al., 2019) and are more likely to make positive earnings revisions (Mola & Guidolin, 2009).

As we all know, analyst earnings forecast revisions are an important source of information in the capital market. Analyst earnings forecast revisions can provide more timely and accurate information for the market and investors, leading to significant changes in stock prices, trading activities, and liquidity (Frankel et al., 2006; Kothari et al., 2016), making them highly significant. In theory, if a company's unexpected earnings are positive, analysts should make upward revisions to the company's earnings forecasts; and when the company's unexpected earnings are negative, analysts should make downward revisions to the company's earnings forecasts. However, when a listed company has self-serving motives and discloses information that distorts its true performance, it can distort the company's unexpected earnings information, misleading analysts in their forecasting behavior. As rational and professional analysts, if they can identify the more positive tone of information disclosed by the company based on self-serving motives compared to the actual information, then analysts should reduce the magnitude of their forecast revisions. Conversely, if analysts cannot recognize the information disclosed by the company based on self-serving motives, then analysts may not revise earnings forecasts or may increase the magnitude of their forecast revisions. Based on this analysis, this article proposes the following hypotheses:

Hypothesis H1a: If analysts can identify a more positive tone of information disclosed by the company based on self-serving behavior, then the magnitude of their earnings forecast revisions will be negatively correlated with the management tone.

Hypothesis H1b: If analysts cannot recognize the tone of information disclosed by the company based on self-serving motives, then the magnitude of their earnings forecast revisions will be unrelated or positively related to the management tone.

3. Methodology

3.1 Data source

This study initially selected A-share listed companies on the Shanghai and Shenzhen stock exchanges from 2009 to 2023 as the initial sample. In order to investigate the impact of management tone in annual reports on analyst earnings forecast revisions, the study first excluded companies in the financial and real estate industries. Subsequently, the remaining sample companies underwent standard procedures: eliminating ST and PT category companies as well as those with missing data. Ultimately, the study obtained 42,988 analyst-year observations corresponding to 2,080 companies. To mitigate the potential influence of extreme outliers on regression results, all continuous variables were winsorized at the 1st and 99th percentiles. The main sources of data include the following: the positive and negative tone word counts in the management discussion and analysis section of annual reports are sourced from the China Research Data Services Platform (CNRDS). Financial data of listed companies, analyst earnings forecast data, and the list of top analysts from "New Fortune" magazine are obtained from the China Stock Market & Accounting Research (CSMAR) database; institutional ownership data is sourced from the Choice database provided by East Money Information Co., Ltd.

3.2 Empirical Model

This study primarily examines whether analysts have the ability to discern non-financial information disclosures made by listed companies based on self-serving motives through their earnings forecast revisions. If analysts can identify that a company is disclosing more positive tone information due to self-serving behavior, then they will reduce the magnitude of their upward earnings forecast revisions. The baseline model is as follows:

$$REV_{i,j,n} = \alpha + \beta\, Readability_{i,n-1} + \gamma X_{i,j,n} + Year + Industry + Borker + \varepsilon_{i,j,n} \quad (1)$$

Where, $REV_{i,j}$ is the correction range of earnings forecast made by analyst j on company i in n years. $Readability_{i,n-1}$ is the management tone of company i in the annual report of year n-1. If analysts can identify the company's more positive management tone disclosure behavior, the former coefficient β should be negative. $X_{i,j,n}$ are the control variables. In addition, *Year* is the annual fixed effect, which is used to control the time characteristics of the company; *Industry* is an industry fixed effect, which is used to control the impact of analysts' tracking of the company's industry on analysts' earnings forecast revision; *Broker* is a fixed effect of securities companies to control the impact of the relationship between

securities companies and companies on the correction of analysts' earnings forecasts. $\varepsilon_{i,j,n}$ is regression residual.

3.3 Variables Measurement

(1) The magnitude of earnings forecast revisions

This paper uses the change of earnings forecast to measure the extent of the correction of analysts' earnings forecast, that is, the difference between the earnings forecast $FEPS_{i,j,Q}$ of analyst j on company i in Q quarter and the earnings forecast $FEPS_{i,j,Q-1}$ of company i in $Q-1$ quarter is the extent of the correction of the original analysts' earnings forecast. First of all, considering that the predicted company may change its share capital (such as share offering, additional share allotment, etc.) when the analysts' research reports in the first and second quarters are released, this paper first adjusts the analysts' prediction data, and constructs the equity adjustment coefficient $\lambda_{i,Q}$ based on the company's share capital in the first quarter of the sample period:

$$\lambda_{i,Q} = \frac{N_{i,Q}}{N_{i,1}}, \tag{2}$$

where, $N_{i,1}$ is the share capital of stock i at the end of the first quarter of the sample period, $N_{i,Q}$ is the share capital of stock i at the beginning of the Q quarter. The adjusted analysts' earnings forecast is:

$$FEPS^{*}_{i,j,Q} = \lambda_{i,Q} * FEPS_{i,j,Q}, \tag{3}$$

Then, we construct the magnitude of analyst forecast revisions as follow:

$$REV'_{i,j,Q} = FEPS^{*}_{i,j,Q} - FEPS^{*}_{i,j,Q-1}, \tag{4}$$

Secondly, to enhance the comparability of the magnitude of analyst earnings forecast revisions across different stocks, this study standardizes the forecast revisions by using the book value per share (*BPS*). The final result yields the adjusted magnitude of the analyst earnings forecast revision:

$$REV_{i,j,Q} = \frac{FEPS^{*}_{i,j,Q} - FEPS^{*}_{i,j,Q-1}}{Bps_{i,j,Q}}, \tag{5}$$

(2) Control Variables

According to the model specifications, this study further summarizes the main explanatory variables, all dependent variables, and moderating variables. Following existing literature, the additional control variables selected in this study are as follows: stock size (Size), analyst coverage (Coverage), book-to-market ratio (B/M), return on equity (ROE), annual dummy variables (Year), industry dummy variables (Industry), and brokerage firm dummy variables. Their specific definitions are presented in Table 1 below.

Table1. Definition and Explanation of Main Variables

Variable Name	Variable symbol	Variable Definitions
Independent variable.		

Variable Name	Variable symbol	Variable Definitions
Text readability	Readability	The natural logarithm of the number of times accounting subjects and professional terms appear in the management discussion and analysis text of the annual reports of listed companies
Control Variables		
Net Return on Assets	*ROE*	The net profit of a listed company divided by its net asset amount
The total assets to liabilities ratio	*Lev*	The ratio of total liabilities to total assets of the listed company
Total revenue growth rate.	*SGR*	The current main operating income of the listed company divided by its previous main operating income.
Enterprise size	*Size*	Ln(1+ Total assets of a listed company)
Book-to-Market Ratio	*B/M*	The book value of a listed company divided by its market value.
Institutional ownership percentage	*INST*	The sum of the percentages of shares held by financial institutions in a listed company
Analyst coverage	*Coverage*	The natural logarithm of the number of analysts (or teams of analysts) who have conducted tracking analysis on the listed company within a year.
Enterprise age	*Age*	Ln(1+ Enterprise age)
The percentage of shares held by the largest shareholder	*BIGR*	The shareholding of the largest shareholder of a listed company divided by the total number of shares of the listed company."
Job consolidation	*DUAL*	Determine whether the positions of Chairman

Variable Name	Variable symbol	Variable Definitions
		and General Manager are consolidated into one, assign 1 if yes, otherwise 0
Company type	*SOE*	If the listed company is a state-owned holding enterprise, assign 1, otherwise assign 0.
Earnings management using accruals	*DA*	Using the modified Jones (1991) model, Residuals obtained from regression at the industry-year level, and then measured by absolute value
Earnings management using real activities	*REM*	Referring to the real earnings management model proposed by Roychowdhury (2006)

4. Empirical Results

4.1 The Effect Text Readability on Analyst Earnings Forecast Revisions

As information intermediaries in the market, whether security analysts can identify textual information disclosed by listed companies for the purpose of interest expropriation is the core research question of this paper. Table 2 reports the results of analysts' earnings forecast revisions in response to textual information in annual reports, with different control variables in columns (1) to (4). According to column (4) in Table 2, the coefficient of the core explanatory variable, textual readability (Readability), is approximately -0.0316 and statistically significant at the 1% level. Economically, this indicates that if the readability of a listed company's annual report is poorer, analysts will correspondingly reduce the magnitude of their earnings forecast revisions. The result suggests that analysts, when making earnings forecast revisions, possess a certain ability to identify textual information disclosed by companies for the purpose of interest expropriation.

From the results of other control variables, the coefficient associated with the company's leverage ratio (*LEV*) is negative, indicating that as the level of leverage of listed companies increases, analysts tend to make lower positive earnings forecast revisions. On the other hand, the coefficient for return on equity (*ROE*) is positive, suggesting that for companies with higher return on equity, analysts tend to make higher positive earnings forecast revisions. The coefficient for company size (*Size*) is negative, indicating that larger companies tend to have lower positive earnings forecast revisions made by analysts. The coefficient for sales growth rate (*SGR*) is significantly positive at the 1% confidence level, indicating that when listed companies are in a high-growth phase, analysts tend to make higher positive earnings forecast

revisions. The coefficient for state ownership (*SOE*) is positive, implying that compared to non-state-controlled listed companies, analysts tend to make higher positive earnings forecast revisions for state-owned listed companies. The coefficient for discretionary accruals *(DA*) is significantly negative at the 1% confidence level, meaning that as the proportion of discretionary accruals in a company's earnings information increases, analysts decrease the magnitude of their earnings forecast revisions. This also suggests that analysts have a certain level of discriminatory ability in detecting earnings management related to discretionary accruals in their earnings forecast revisions. Furthermore, the higher the institutional ownership percentage of a company, the higher analysts' positive earnings forecast revisions tend to be, indicating that conflicts of interest from institutions can influence analysts' forecasting behavior.

Table 2. The Effect Text Readability on Analyst Earnings Forecast Revisions

Variable	*Rev*	*Rev*	*Rev*	*Rev*
	(1)	(2)	(3)	(4)
Readability	-0.0221***	-0.0327***	-0.0328***	-0.0316***
	(-3.32)	(-8.58)	(-8.12)	(-7.89)
ROE		0.8273***	0.8137***	0.8416***
		(14.86)	(14.29)	(15.05)
LEV		-0.0181***	-0.0134**	-0.0089
		(-3.04)	(-2.32)	(-1.49)
SGR		0.2187***	0.2173***	0.1797***
		(17.10)	(17.13)	(13.95)
Size		-0.0199***	-0.0234***	-0.0287***
		(-4.03)	(-4.89)	(-5.64)
B/M		0.0354**	0.0223	0.0327*
		(2.10)	(1.57)	(1.88)
INST		0.0270*	0.0235	0.0355**
		(1.68)	(1.45)	(2.16)
Coverage		-0.0175***	-0.0123**	-0.0036
		(-3.61)	(-2.52)	(-0.72)
Age		0.0670***	0.0667***	0.0519***
		(8.47)	(8.50)	(6.41)
BIGR		-0.0010***	-0.0008***	-0.0010***
		(-4.44)	(-3.30)	(-4.17)
DUAL		0.0042	0.0002	0.0029
		(0.59)	(0.03)	(0.40)

SOE		0.0292***	0.0406***	0.0370***
		(3.64)	(5.15)	(4.50)
DA		-0.2007***	-0.2069***	-0.2176***
		(-3.73)	(-3.90)	(-4.08)
REM		0.0322	0.0334	0.0259
		(1.44)	(1.54)	(1.17)
Constant	0.3227**	-0.0544	-0.2464**	0.3879***
	(2.00)	(-0.52)	(-2.23)	(2.83)
industry FE	Yes	No	Yes	Yes
year FE	Yes	Yes	Yes	Yes
Borker FE FE	Yes	No	No	Yes
Observations	42,985	35,777	35,771	35,771
R-squared	0.060	0.139	0.147	0.164

Note. The t-statistics reported in brackets are calculated using standard errors clustered at firm level. Financial data are in RMB. All continuous variables are winsorized at the first and 99th percentiles. *, ** and *** represent significant level at the 10%, 5% and 1%, respectively.

4.2 Replace Explained Variable

This subsection conducts a robustness test by replacing the dependent variable, the magnitude of analysts' earnings forecast revisions (REV), with the direction of analysts' earnings forecast revisions (Rev_sign). The regression results are shown in Table 3. The industry fixed effects, year fixed effects, and brokerage firm fixed effects differ across columns (1) to (6) in Table 3. As indicated by the regression results in Table 3, the coefficient of the core explanatory variable, textual readability (Readability), is significantly negative at the 1% level. Economically, this suggests that poorer readability of the annual report's text leads analysts to correspondingly reduce the magnitude of their earnings forecast revisions. The robustness test results in this paper similarly indicate that analysts, when revising earnings forecasts, possess a certain ability to identify textual information disclosed by companies for the purpose of interest expropriation.

Table 3. Robustness Regression Results with Different Independent Variables

变量	*Rev_sign*	*Rev_sign*	*Rev_sign*	*Rev_sign*	*Rev_sign*	*Rev_sign*
	(1)	(2)	(3)	(4)	(5)	(6)
Readability	-0.0315***	-0.0403***	-0.0352***	-0.0313***	-	-
	(-3.81)	(-3.74)	(-3.56)	(-3.53)	(-3.50)	(-3.51)
ROE	2.3313***	2.3741***	2.3568***	2.3433***	2.4017***	2.3948***
	(34.07)	(33.92)	(33.92)	(34.09)	(33.79)	(33.61)
	-0.0017	0.0164**	-0.0061	-0.0012	0.0126*	0.0116*

LEV	(-0.25)	(2.42)	(-0.87)	(-0.17)	(1.84)	(1.67)
SGR	0.3968***	0.3196***	0.3966***	0.3870***	0.3169***	0.3121***
	(22.46)	(17.68)	(22.23)	(21.90)	(17.39)	(17.14)
Size	0.0204***	0.0014	0.0225***	0.0219***	0.0007	0.0042
	(3.57)	(0.23)	(3.80)	(3.81)	(0.10)	(0.65)
B/M	0.1383***	0.1572***	0.1568***	0.1417***	0.1608***	0.1612***
	(6.43)	(6.99)	(6.77)	(6.52)	(6.64)	(6.61)
INST	-0.0033	0.0371	0.0005	-0.0078	0.0359	0.0297
	(-0.13)	(1.43)	(0.02)	(-0.30)	(1.37)	(1.13)
Coverage	0.0205**	0.0474***	0.0177**	0.0227***	0.0499***	0.0504***
	(2.45)	(5.38)	(2.06)	(2.68)	(5.52)	(5.54)
Age	0.0783***	0.0589***	0.0762***	0.0750***	0.0549***	0.0536***
	(7.08)	(5.24)	(6.76)	(6.76)	(4.79)	(4.67)
BIGR	-0.0009***	-0.0009**	-0.0014***	-0.0009**	-	-
	(-2.65)	(-2.53)	(-3.80)	(-2.45)	(-3.77)	(-3.74)
DUAL	0.0085	0.0077	0.0082	0.0070	0.0074	0.0069
	(0.70)	(0.64)	(0.68)	(0.58)	(0.61)	(0.57)
SOE	0.0650***	0.0796***	0.0555***	0.0662***	0.0724***	0.0712***
	(5.62)	(6.85)	(4.66)	(5.72)	(6.05)	(5.94)
DA	-0.3004***	-0.3060***	-0.2908***	-0.2996***	-	-
	(-5.15)	(-5.28)	(-4.96)	(-5.12)	(-5.22)	(-5.11)
REM	0.1120***	0.1053***	0.1020***	0.1066***	0.0987***	0.0934***
	(4.62)	(4.37)	(4.16)	(4.39)	(4.06)	(3.83)
Constant	-1.5426***	-1.1033***	-1.4740***	-1.9364***	-	-
	(-13.15)	(-6.91)	(-11.45)	(-10.87)	(-5.63)	(-6.07)
industry FE	Yes	Yes	No	No	Yes	Yes
year FE	Yes	No	Yes	No	Yes	Yes
Borker FE FE	Yes	No	No	Yes	No	Yes
Observations	35,777	35,777	35,777	35,771	35,777	35,771
R-squared	0.090	0.114	0.092	0.096	0.116	0.122

Note. The t-statistics reported in brackets are calculated using standard errors clustered at firm level. Financial data are in RMB. All continuous variables are winsorized at the first and 99th percentiles. *, ** and *** represent significant level at the 10%, 5% and 1%, respectively.

5. Conclusion and Discussion

This study examines the sensitivity of analysts' forecast revision behavior to textual readability in Chinese A-share listed companies on the Shanghai and Shenzhen stock exchanges from 2009 to 2023. The empirical results reveal: analysts possess a certain ability to identify textual information disclosed by companies for the purpose of interest expropriation. Securities analysts in China demonstrate some ability to discern non-financial information disclosed by listed companies based on self-serving motives. Therefore, this study examines the impact of non-financial information disclosure on the capital markets from the perspective of analysts. The findings indicate that analysts, as information intermediaries, are able to identify the information distortion caused by management's disclosure of non-financial information based on self-serving motives. This study addresses the question of whether non-financial

information is a "straw man," expanding the understanding of the impact of non-financial information disclosure on the capital markets. The conclusions of this research suggest the importance of regulating non-financial information disclosure in the future. Additionally, the study supplements the research on the differences in analytical capabilities between star analysts and non-star analysts from the perspective of information identification abilities.

References

Allee, K. D., & Deangelis, M. D. (2015). The Structure of Voluntary Disclosure Narratives: Evidence from Tone Dispersion. *Journal of Accounting Research*, *53*, 241-274. https://doi.org/10.1111/1475-679X.12072

Barber, B., Lehavy, R., & McNichols, M. (2001). Can Investors Profit from the Prophets? Security Analyst Recommendations and Stock Returns. *The Journal of Finance*, *56*(2), 531-563. https://doi.org/10.1111/0022-1082.00336

Blankespoor, E., Dehaan, E., & Zhu, C. (2018). Capital market effects of media synthesis and dissemination: Evidence from robo-journalism. *Review of Accounting Studies*, *23*, 1-36. https://doi.org/10.1007/s11142-017-9422-2

Bloomfield, R. (2008). Discussion of "Annual report readability, current earnings, and earnings persistence". *Journal of Accounting & Economics*, *45*, 248-252. https://doi.org/10.1016/j.jacceco.2008.04.002

Boone, A. L., & White, J. T. (2015). The effect of institutional ownership on firm transparency and information production. *Journal of Financial Economics*, *117*, 508-533. https://doi.org/10.1016/j.jfineco.2015.05.008

Bouchaud, J. P., Krueger, P., & Landier, A. (2019). Sticky Expectations and the Profitability Anomaly. *The Journal of Finance*, *74*(2), 639-674. https://doi.org/10.1111/jofi.12734

Bradshaw, M. T. (2011). *Analysts' forecosts: What do we know after decades of work*? Working Paper. https://doi.org/10.2139/ssrn.1880339

Bushee, B. J., Jung, M. J., & Miller, G. S. (2011). Conference Presentations and the Disclosure Milieu. *Journal of Accounting Research*, *49*(5), 1163-1192. https://doi.org/10.1111/j.1475-679X.2011.00426.x

Bushee, B. J., Core, J. E., Guay, W., & Hamm, S. J. W. (2010). The role of the business press as an information intermediary. *Journal of Accounting Research*, *48*, 1-19. https://doi.org/10.1111/j.1475-679X.2009.00357.x

Chen, X., Harford, J., & Li, K. (2007). Monitoring: Which institutions matter? *Journal of Financial Economics*, *86*(2), 279-305. https://doi.org/10.1016/j.jfineco.2006.09.005

Cheng, Q., Du, F., Wang, X., & Wang, Y. (2016). Seeing is believing: analysts' corporate site visits. *Review of Accounting Studies*, *21*(4), 1245-1286. https://doi.org/10.1007/s11142-016-9368-9

Clement, M. B. (1999). Analyst Forecast Accuracy: Do Ability, Resources, and Portfolio Complexity Matter? *Journal of Accounting and Economics*, *27*(3), 285-303. https://doi.org/10.1016/S0165-4101(99)00013-0

Davis, A. K., Ge, W., Matsumoto, D., & Zhang, J. L. (2015). The effect of manager-specific optimism on the tone of earnings conference calls. *Review of Accounting Studies*, *20*, 639-673. https://doi.org/10.1007/s11142-014-9309-4

Dhaliwal, D. S., Radhakrishnan, S., Tsang, A., & Yang, Y. G. (2012). Nonfinancial Disclosure and Analyst Forecast Accuracy: International Evidence on Corporate Social Responsibility Disclosure. *Accounting Review*, *87*, 723-759. https://doi.org/10.2308/accr-10218

Engelberg, J. E., & Parsons, C. A. (2011). The Causal Impact of Media in Financial Markets. *Journal of Finance*, *66*, 67-97. https://doi.org/10.1111/j.1540-6261.2010.01626.x

Fang, L., & Peress, J. (2009). Media Coverage and the Cross-section of Stock Returns. *Journal of Finance*, *64*, 2023-2052. https://doi.org/10.1111/j.1540-6261.2009.01493.x

Frankel, R., Kothari, S. P., & Weber, J. (2006). Determinants of the Informativeness of Analyst Research. J*ournal of Accounting and Economics*, *41*(1-2), 29-54. https://doi.org/10.1016/j.jacceco.2005.10.004

Guest, N. (2018). *Do Journalists Help Investors Analyze Firms' Earnings News*? (December 11, 2018). Working Paper. https://doi.org/10.2139/ssrn.3067387

Han, B., Kong, D., & Liu, S. (2018). Do Analysts Gain an Informational Advantage by Visiting Listed Companies? *Contemporary Accounting Research*, *35*(4), 1843-1867. https://doi.org/10.1111/1911-3846.12363

Hong, H., & Kubik, J. D. (2003). Analyzing the Analysts: Career Concerns and Biased Earnings Forecasts. *The Journal of Finance*, *58*(1), 313-351. https://doi.org/10.1111/1540-6261.00526

Hope, O. K., Hu, D., & Hai, L. (2016). The benefits of specific risk-factor disclosures. *Review of Accounting Studies*, *21*, 1005-1045. https://doi.org/10.1007/s11142-016-9371-1

Kothari, S. P., So, E., Verdi, R. (2016). Analysts' Forecasts and Asset Pricing: A Survey. *Annual Review of Financial Economics*, *8*(1), 197-219. https://doi.org/10.1146/annurev-financial-121415-032930

Kothari, S. P., Li, X., & Short, J. E. (2009). The Effect of Disclosures by Management, Analysts, and Business Press on Cost of Capital, Return Volatility, and Analyst Forecasts: A Study Using Content Analysis. *Accounting Review*, *84*, 1639-1670. https://doi.org/10.2308/accr.2009.84.5.1639

Kravet, T., & Muslu, V. (2013). Textual risk disclosures and investors' risk perceptions. *Review of Accounting Studies*, *18*, 1088-1122. https://doi.org/10.1007/s11142-013-9228-9

Lang, M. H., & Lundholm, R. J. (1996). Corporate Disclosure Policy and Analyst Behavior. *Accounting Review*, *71*, 467-492.

Loughran, T., & Mcdonald, B. (2014). Measuring Readability in Financial Disclosures. *Journal of Finance*, *69*, 1643-1671. https://doi.org/10.1111/jofi.12162

Merkley, K. J. (2014). Narrative Disclosure and Earnings Performance: Evidence from R&D Disclosures. *Accounting Review*, *89*, 725-757. https://doi.org/10.2308/accr-50649

Miller, B. P. (2010). The Effects of Reporting Complexity on Small and Large Investor Trading. *Accounting Review*, *85*, 2107-2143. https://doi.org/10.2308/accr.00000001

Mola, S., & Guidolin, M. (2009). Affiliated mutual funds and analyst optimism. *Journal of Financial Economics*, *93*(1), 108-137. https://doi.org/10.1016/j.jfineco.2008.06.006

O'Brien, P. C., Mcnichols, M. F., & Lin H. (2005). Analyst Impartiality and Investment Banking Relationships. *Journal of Accounting Research*, *43*(4), 623-650. https://doi.org/10.1111/j.1475-679X.2005.00184.x

Stice, E. K. (1991). The Market Reaction to 10-K and 10-Q Filings and to Subsequent The Wall Street Journal Earnings Announcements. *Accounting Review*, *66*, 42-55.

Womack, K. L. (1996). Do Brokerage Analysts' Recommendation Have Investment Value? *The Journal of Finance*, *51*(1), 137-167. https://doi.org/10.1111/j.1540-6261.1996.tb05205.x

Yu, F. F. (2008). Analyst coverage and earnings management. *Journal of Financial Economics*, *88*(2), 245-271. https://doi.org/10.1016/j.jfineco.2007.05.008