

# A literature review on earnings communication calls: information asymmetry, signaling, and research progress

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**Abstract.** Earnings communication conferences (ECCs) have emerged as a critical interactive platform for information dissemination in China's capital market, playing a pivotal role in mitigating information asymmetry between firms and investors. This paper conducts a systematic literature review of 15 key studies on ECCs published in top journals from 2020 to 2024, aiming to synthesize existing research and identify future directions. The review focuses on three core dimensions: the structure and functions of ECCs (with particular attention to the information-rich question-and-answer session), methodological approaches (including textual analysis of management tone, Q&A semantic similarity via BERT, and measurements of managerial traits (humor and narcissism), and theoretical frameworks (predominantly information asymmetry theory and signaling theory). Empirical findings highlight the impact of ECCs on market reactions, such as stock price dynamics and analysts' forecast accuracy, as well as the influence of corporate characteristics (e.g., CSR performance) and managerial behaviors on communication quality. This review addresses the scarcity of comprehensive syntheses in extant literature, providing foundational insights for scholars exploring ECC-related topics and outlining avenues for future research.

**Keywords:** ECCs, information asymmetry, textual analysis, signaling theory, Q&A session.

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## 1. Introduction

Earnings communication conferences (ECCs, thereafter) have become essential and interactive information communication platform in China's capital market. ECCs originate from earning conference calls in the United States, which serves as a platform linking listed firms' executives to small-medium shareholders, and exerts more positive impacts on capital markets. The engagement and value of participating earning communication conferences in China is increasing. As reported by Securities Times, the total number of Chinese firms holding earning communication conferences increases to 5130 in 2024, which occupies around 96.1% of the entire listed companies, besides the ratio of directors of boards and general managers' attendance has reached to 98.5%.

ECCs help reduce information asymmetry among managers and external investors, which is a fundamental issue in economics and finance. ECCs consist of two separate segments, one is management presentation and the second is question-and-answer (Q&A). During Q&A session, investors can interact with managers through raising questions on these firms, and the conversations between them are evidenced to contain information value, which can be evaluated as the level of information asymmetry. Because of its long history and meaningfulness, numerous scholars have conducted extensive research in ECCs. Thus, a strand of literature has focused on various aspects of earnings conference calls.

The paper conducts literature reviews on 15 ECC related articles, most of which are published in the top journals from 2020 to 2024. The contribution of this paper is to provide fundamental knowledge of ECCs and future research direction. This review critically evaluates in a bid to address the gap that the number of review articles on ECCs is scarce in extant literature. Readers can gain basic knowledge the topics related to ECCs that can be further explored. The following sections consist of research on ECCs, research on methodology in ECCs related literature, theoretical framework, empirical findings and conclusion.

## 2. Research on earning conference calls

### 2.1. Overview

Chinese capital market has become a prominent emerging market in the past decade. Retail investors are intensive in China, in contrast to developed capital markets. Compared to institutions, retail investors are deemed to be at a disadvantage as it comes to information because they lack equal access to dialogue with management. To protect retail investors' interests, some firms which are listed on two main stock exchange are required to hold earnings conference calls (ECCs) by regulation. In detail, A-share firms listed on GEM and SME board at Shenzhen Stock Market, have mandatory requirements to hold ECC within 10 trading days after releasing annual reports. Firms listed on main boards at Shanghai Stock Market and Shenzhen Stock Market only have voluntary requirements to hold ECCs. Participants of ECCs consist of CEO, CFO, chairperson of board, independent directors, and so on (firm's side) and include institutional investors, block-holders, buy-side analysts, and so on. In addition, China Securities Regulatory Commission (CSRC) reviewed and passed Administrative Measures for Information Disclosure of Listed Companies in 2021. The Administrative Measures describe that information disclosure obligors shall disclose information that must be truthful, accurate, and complete, as well as clear, concise, and presented in a plain and understandable manner.

Firms' earning communication calls is a crucial mechanism for value transmission, which can help public comprehensively understand financial situations and business strategy. Chinese enterprises hold ECCs on a regular basis, which becomes the main platform for communication between the individuals' investors. ECCs are seen as the most prevalent methods for corporate disclosures to reduce information asymmetry among investors, which consists of two segments, one is management presentation and the second is Q&A session.

### 2.2. Q&A session of ECCs

Previous literature illustrates that question and answer session (Q&A) involves interactions between management and analysts, is the most informative segment of the call [1, 2]. Thus, Q&A session contains more information content than presentation section, because it is interactive and investors can join into conversations with managers through raising questions. Managers tend to truthfully disclose their information to participants, and the section is more influential, as stated in [3]. Besides, transcripts of ECCs combine two individual segments: one is presentation and another is discussion segment. Both segments contain more incremental information than press release and relative more information is during discussion period, which is pronounced when the firm's performance is poor [1]. Researchers and analysts could explore incremental information from transcripts to generate new investment strategies.

Firms' managers provide three classifications of answers in response to the investors' questions: direct and relevant answers, 'non-answers' and 'irrelevant answers'. The first type is called 'direct and relevant answers'. Firms' managers provide accurate answers when they do not have financial incentives to hide information in front of the public. The semantic similarity of questions and answers is highly correlated, and it can help mitigate information asymmetry among the investors. High communication quality in ECCs is significant if the managers provide the first type of answer. The second is 'non-answers' [4]. illustrates that non-answers are categorized as 'Refuse', 'Unable' and 'After-call', where 'Refuse' indicates that managers decline to response to investors who can't obtain relevant information, 'Unable' means that managers are not equipped with adequate knowledge on this topic and 'After-call' implies that managers intend to discuss the question after finishing the ECCs. The primary reason for 'non-answer' is that the questions raised by analysts may relate to firms' private information, that affects investors' sentiment if they disclose the information [5]. The likelihood of 'non-answers' is high when questions are related to firms' performance, and the relation becomes stronger if firms' performance is weak, and competition is intense [4]. Besides, they found that to some extent, how the analysts raise questions also triggers 'non-answers', such that when analysts obscure their questions that makes them ambiguous and express their doubts using pessimistic tones and complex languages, in addition that analysts request details on the answers, firms' managers prefer to exhibit 'no - answers'.

Besides, 'irrelevant answer' describes that managers provide less relevant information on the questions. 'Indirect answer' in Q&A session signal future earnings decline and lower stock returns, which may reflect managerial pessimism for the firm's performance. Besides, [6] discovers that managers' evasiveness is measured by both managers' irrelevant answers and non-answers in earning conference calls, which is the second and third types, indicating that managers hide the information and decline to respond to investors, for image-enhancing and expression management, or other financial incentives.

### 3. Research on methodology in ECC's literature

#### 3.1. Research on textual analysis in ECCs

##### 3.1.1. Management tones

To construct management's textual tone, the traditional method is to implement Python-based word segmentation utilizing the "Jieba" tool which is open-source for public. Dictionary matching is the second step. Bag-of-words method matches positive and negative tone words in the text. The method's advantages include simplicity, objective and no requirements of pre-selection training samples [7]. Additionally, the more advanced approach is to use the CNRDS database's enhanced lexicon, which is based on the Loughran and MacDonald (LM) financial sentiment English vocabulary list that has been adjusted for the Chinese-language context. The benefit of this approach is that it strikes a balance between part-of-speech authority and the distinctive features of Chinese grammar and cultural connotations [8]. Then, it turns out to count the frequency of both positive and negative terms appearing in the communications. Finally, the linguistic tone of the management can be constructed. The tone is calculated for entire call, managers' introductory remarks, managers' Q&A responses, and analysts' Q&A comments. To measure the linguistic tone of management communications, the following formula is used (see Equation (1)):

$$\text{Tone}_{p,i,q} = \frac{\# \text{Positive Words} - \# \text{Negative Words}}{\# \text{Positive Words} + \# \text{Negative Words}} \quad (1)$$

'Positive' is the total number of positive emotion words in management's answers, 'Negative' is the total number of negative emotion words in such answers. The  $\text{Tone}_i$  value ranges from -1 to 1, which indicates that higher value indicates managers' positive and emotionally upbeat responses, lower value indicates managers' negative and downbeat responses.

Moreover, tone difference measurement is defined as the difference between the tone of managers in the introduction and the tone of the analysts in the Q&A section. Where  $p$  denotes participants (managers/analysts),  $i$  denotes identity(firms), and  $q$  denotes frequency of holding ECCs (i.e. quarters, etc.). The tone difference between managers' introductory remarks and analysts' Q&A comments is calculated using Equation (2):

$$\text{Tone Difference}_{i,q} = \text{Managers' tone\_Intro}_{i,q} - \text{Analysts' tone\_Q \& A}_{i,q} \quad (2)$$

##### 3.1.2. Q&A similarity

Degree of semantic relevance in Q&A plays a primary role in determining the communication quality. When semantic relevance reaches a certain threshold, efficient information is transmitted. The Q&A section of ECCs is like financial communities such as Snowballs and Easymoney, visitors or investors can post their comments or doubts on companies' performance or earnings, who can obtain answers from public. The section helps reduce information asymmetry between firms and investors, because investors can obtain relevant information through raising questions. Thus, semantic relevance between questions and answers is the proxy for communication quality.

Semantic relevance indicator is used to assess information quality of Q&A sessions in ECCs. The traditional method to indicator construction is using cosine distance between the Q&A lexical vectors, but the disadvantage of the method is that it only captures 'similarity' in words between questions and answers, which is different from 'relevance'. In other words, similarity of words does not represent semantic relevance. To address this shortcoming, a machine learning technique called BERT (Bidirectional Encoder Representations from Transformers) is employed, which is initially released by Google in 2018 and is a powerful language model because they have significant advantages in identifying context semantics.

According to [5], it can be learnt that "Bert-Base-Chinese" is designed for a series of Chinese natural language processing tasks and provide us with a powerful method for the purpose of deep learning under Chinese context, which includes that text feature extraction, text classification and named entity recognition. "Bert-Base-Chinese" pre-trained model is applied in the research, batch and hidden size are set as 64 and 768. The vector distance is calculated using Cosine value, denoted as  $\text{Cos}(\text{Ques}_j, \text{Ans}_j)$ . This is called similarity, and the cosine similarity formula is applied (see Equation (3)):

$$\text{Cos}(\text{Ques}_j, \text{Ans}_j) = \frac{\text{Ques}_j * \text{Ans}_j}{\|\text{Ques}_j\| * \|\text{Ans}_j\|} = \frac{\sum_{i=1}^n \text{Ques}_j * \text{Ans}_j}{\sqrt{\sum_{i=1}^n (\text{Ques}_j)^2} * \sqrt{\sum_{i=1}^n (\text{Ans}_j)^2}} \quad (3)$$

$\text{Ques}_j$  and  $\text{Ans}_j$  are the question-text and answer-text that processed by the BERT model, in the  $j$  pair Q&A of the conferences of each firm.  $\text{Similarity}_j$  is a continuous variable spanning from 0 to 1. Then, we calculate the mean values of total Q&A pairs of the Firm <sub>$j$</sub>  in earning conference calls at year  $t$ , to generate  $\text{Similarity}_j$ .

### 3.1.3. Managers' humor

The use of humour is common in interpersonal conversations, whereas literature about managers' humour in corporate communication is blank [9]. fills the gap by utilizing 63560 conference call transcripts which span from 2011 to 2016 and taking a sophisticated machine learning algorithm to identify whether managers successfully use humour in corporate disclosures. Two steps are used in this process. The first step is that audio recordings of conference calls are combined with transcript time stamps which is used by Python package called "aeneas", then it can help split audio into snippets (7-15 seconds). Besides, using package named as "laughterdetection" identifies laughter, and the package should be adapted to the domain with 50 manually coded training samples. The criterion is that the laughter should be greater than 1 second and threshold of probability is 99%, ensuring 100% precision but only 40% of audios are recalled, which captures a lower bound of humour. After detecting humour in the disclosure, the second step is moving to humour attribution. If laughter occurs between two sentences of the same person's speech, the laughter belongs to that person; otherwise, the source of the humour is determined by human review of the audio file.

### 3.1.4. CEO narcissism

ECCs related literature explores the association between CEO narcissism and linguistic complexity [10]. construct CEO narcissism using 15-item index based on Rijsenbilt and Commandeur, which cover four different dimensions: compensation, public exposure, managerial power and acquisition behaviour. Gunning Fog Index is used to measure linguistic complexity, is calculated via Equation (4):

$$\text{Fog Index} = \left[ \left( \frac{\text{words}}{\text{sentences}} \right) + 100 \left( \frac{\text{complex words}}{\text{words}} \right) \right] \times 0.4 \quad (4)$$

The index includes the length of sentences and complex words which has three syllables and above. Linguistic complexity is broken down into two segments 'obfuscation component' and 'information component', where the 'information component' is the fitted values from regressing CEO complexity on analysts' complexity and 'obfuscation component' is the residuals from the regressions. In detail, the decomposition model of linguistic complexity is used for splitting information and obfuscation segments, see Equation (5):

$$\text{Fog}(\cdot)_{iq} = \beta_0 + \beta_1 \text{Fog}(\text{Analysts})_{iq} + \delta \text{Controls}_{iq} + \varepsilon_{iq} \quad (5)$$

Where,  $\text{Fog}(\cdot)$  denotes linguistic complexity of CEO presentation or Q&A session, and  $\text{Fog}(\text{Analysts})$  denotes linguistic complexity of analysts, controls include firm-level and CEO-level variables. Residuals from the decomposition model capture CEO obfuscation. The objective in this research is to examine the relation between CEO narcissism and obfuscation. The following model is used, see Equation (6):

$$\text{Obf}(\cdot)_{iq} = \beta_0 + \beta_1 \text{Narcissism}_{iq} + \beta_2 \delta \text{Controls}_{iq} + \theta_t + \varphi_i + \varepsilon_{iq} \quad (6)$$

Where,  $\text{Obf}(\cdot)$  and  $\text{Narcissim}$  represent the CEO's obfuscation and narcissism. In addition, [10] has conducted robust analysis through replacing CEO's obfuscation with linguistic complexity index, such as Bog Index, Flesch Index, SMOG Index, and the results are consistent.

## 3.2. Research on topics related to ECCs literature

Some papers focus on the association between corporate social responsibility (CSR) and earning conference calls. CSR and ES performance exert influences in information disclosure in ECCs [11]. use OLS regressions to examine how ES performance affects the managers' and analysts' tones, after controlling firm performance, size, and other unobservant characteristics. Besides, the OLS regressions also have been used to test the relation between tone difference and abnormal returns, as well as the differential impacts under positive and negative earnings news. The study considers the moderation role of ESG Score in the relationship between ES incidents, tone, and pricing efficiency. The proxy for ES performance is to use the count of ES incidents (i.e. negative environmental and social events) in 90-day period prior to the earnings calls, which are collected from RepRisk database.

[9] explores determinants that affect managers' humor and introduces a logistic regression model, which estimates the probability of manager's use of humor (denoted as  $\text{Humor\_Manager}$ ) based on analyst sentiment, firm size, tone, earnings news, and previous humor use (denotes  $\text{LagHumor\_Manager}$ ). Besides, the study adopts OLS regressions that examine the association between  $\text{Humor\_Managers}$  with markets and analysts' reactions, which is measured by  $\text{CAR}[0, +1]$  and  $\text{ChgForecast}$  as well as the interaction with earnings surprises. To verify that the manager's use of humor signals firms' good performance, it tests the relation with returns reversals and future earnings which denotes  $\text{CAR}[+2, +30]$  and  $\text{FutureEarnSurp}$  in this study. In addition, it

also explores how analysts' humor relates to their communications characteristics in ECCs, for instance abnormal question length and Analysts' follow ups.

Stock price crash risk is a serious problem that managers have to pay efforts to mitigate its impact, because the risk may lead to a sharp decline in firms' market value and hurt shareholders' interests, and firms' reputation will damage to some extent. Earning conference calls as a corporate voluntary disclosure platform can be used to detect the likelihood of stock price crash risk through comparing managers and analysts' tones [3]. examines the predictive power of earning conference calls tone for stock price crash risk and introduces three different methods for constructing stock price crash risk. Stock crash risk can be measured by the number of weekly firm-specific returns which exceeds 3.2 standard deviations below and above the mean which denotes 'COUNT', negative skewness of firm-specific weekly returns which denotes 'NCSKEW' and 'DUVOL', which is calculated by the log ratio of standard deviation of firms-specific returns in down weeks and up weeks [3]. has conducted deep analysis of how tones in ECCs influence stock price crash risks, through splitting ECCs tones into presentation management tones, Q&A session tones, management tones and participants tone in Q&A sessions. The tone is more optimistic when the indicator is higher, and the tone is pessimistic when the indicator is low.

## 4. Theoretical framework

### 4.1. Research on information asymmetric theory

Information asymmetry is an economic event that appears when one party possesses information that other party does not have in the transactions. A classic example illustrates that in the second-hand car market, both sides of transactions involve a buyer and seller, who have more information on the quality of car than buyer. A seller could take advantage of information on car's quality and sell a low-quality car which is broken or flawed for their profits, named as a 'lemon'.

Information asymmetry exists among buyers and sellers in the second-hand car market as well as the capital market. Information plays a crucial role in the decision-making of capital markets and enterprises. Participants in the capital markets have different approaches, different educational backgrounds as well as varying skills in obtaining and processing information. Thus, participants acquire different levels of information, which may lead to information asymmetry and agency problems.

In the stock market, for example, retail investors and institutional investors differ in their ability and approaches to acquiring information. Institutional investors like researchers and quantitative analysts are stronger than retail investors in information acquisitions, as they have specialized skills and analytical abilities, who can obtain information through such that on-site research and visits, whereas the approach of retail investors to obtain information is simple and the ability of their information acquisition is weaker than institutional investors. Besides, firms' managers possess more relevant information in comparison to participants. They can mitigate information asymmetry among investors through uncovering more relevant information contents in the presentation and Q&A sessions during earning communication conferences. In the case of information asymmetry, some literature has revealed how to mitigate it in the capital markets.

[12] found that corporate ESG performance can help reduce information asymmetry and concentration of strategic investors strengthen this relation through utilizing non-financial listed firms from 16 European countries. In China, a block-holder tends to trade, reducing information asymmetry through credible exit threat channel, which encourages to discipline management and improve transparency in information disclosure as stated in [13]. This implies that higher non-tradable block ownership could inhibit earnings management and mitigate the conflicts of interest between tradable minority shareholders, thereby enhancing operating efficiency. In the ECCs, firms' managers are suggested to disclosing information concisely and provide a direct answer to the public, for reducing information asymmetry among the participants.

### 4.2. Research on signaling theory

[14] states that signalling theory is related to decision-making and communication, explaining situations that signallers convey reliable information about unobservable attributes using observable signals, which can assist decision-makers in making better choices when they have little or inaccurate information. Besides, signalling theory focuses on situations that are related to information asymmetry between two actors, the sender and receiver. The senders must choose which information or signal, and whether they choose to communicate with recipients. And the receivers need to understand and interpret the signals.

Humour is commonly employed in interpersonal interactions, as well as corporate communication which is a favourable signal that managers convey to the public. Humour brings favourable news and positive earnings announcements [9]. contributes to the literature on the use of humour in corporate disclosure and found that managers' use of humour in ECCs predicts that cumulative abnormal returns (CARs) are positive in the two days windows and analysts forecast revisions are less negative following ECCs. Besides, the paper finds that favourable news is expected to be released at the subsequent quarter's earnings announcements if managers use humour in ECCs and returns reversal does not appear in the 30 days windows following ECCs. Besides, as evidence from [15] shows that 'non-answers' in ECCs signal future uncertainty, lower firms' profitability and managerial inefficiency.

Signalling theory is also applied in the realm of corporate financing. When the firms declare the special dividends, such as one-time or non-recurring dividends payouts beyond the regular dividend's schedules and issue corresponding dividend announcements, this action acts as a powerful signal to the market and firms has achieved superior operating performance than the past periods. Besides, when the firms issue debts through corporate bonds, bank loans, or other credit instruments, it sends a signal about the firm's value is increasing and management is confident in the firms' ability to general sufficient cash flows to afford interest payments and repay their principals, thus debt is a signal of firm value.

## 5. Findings and discussion

### 5.1. Empirical findings

[16] found that when the companies have poor ES performance in the quarter prior to the ECCs, managers convey information using negative tone. Tone differences among managers and analysts in both the introduction and Q&A sections of ECCs has the predictive power for negative abnormal returns in three-day windows. This indicates that managers have incentives to manipulate their tones for disguising their poor ES performance and hinder the improvement in transparency. Besides, [17] demonstrates that firms with strong CSR performance provide more relevant information and mitigate information asymmetry, which represents that CSR performance is positively associated with the changes in market reactions and increase in CSR performance also can help reduce dispersion in financial analysts' forecasts. Additionally, management tone has incremental effects on both CSR performance and market reactions to the calls in the firms with future unfavourable information after controlling other unobservant characteristics.

According to [18], it can be found that Chinese firms holding ECCs have an upward influence on post-earnings-announcement drift, but negative tone in the ECCs contributes to higher PEAD. Specifically, market reaction is sensitive to managers' tone rather than investors' tone because investors tend to overreact to the changes in firms' stock prices. Besides, managers and analysts' conversations can drive the movement of stock prices [19]. further found that intraday stock prices are more sensitive to analysts' tones, in contrast to management during the full period of discussions. The relation is more pronounced when the analyst tone is negative. The phenomenon is attributed that analysts may have strong investment and analytical skills, who can provide insights into the business conditions and problems, in addition that analysts need to obey higher professional ethics, thus they behave as more neutral than managers.

"Managerial myopia" describes a tendency for managers to prioritize short-term financial objectives over longer-term factors like ESG [20]. further suggest that when investors express negative opinions in ECCs, managers engage in more myopic behaviours. This relationship is stronger when there are more investors participating in ECCs, when investors ask a lot of questions, and when managers make lengthier speeches. Conversely, the relationship deteriorates when managers are more capable, have more work in other organizations, and exhibit positive attitudes in ECC. Additionally, if the public companies receive greater media attention and have fewer institutional investors, the relationship is strengthening.

Besides, how the embedded information content of Q&A similarity influences analysts and semantic relevance of Q&A is the proxy for communication quality. Higher Q&A similarity increases analysts' prediction accuracy and decreases their optimism bias, besides the value of the information is greater for analysts with greater industry expertise and enterprises with weak governance [5]. Peer firms' investors negatively respond to managers' evasiveness and the spillover effect is more pronounced in peer firms with lower degree of information transparency, whereas it is constraint in firms with lower market power or a low leverage ratio [6]. Under the circumstances, peer investors choose to sell stock for liquidity and managers' evasiveness in ECCs signals some issues existing in the firms, which cannot uncover.

[3] found that firms transfer information using less optimistic tones in the year-end conference calls, which can predict a higher likelihood of stock price crashes in the subsequent year. The relation is stronger in a better information environment and lower managerial equity incentives. That's to say, facing more media coverage and strengthened regulation, managers prefer truthful information disclosure as well as when managers have lower financial equity incentives.

Firms' management characteristics such as CEO narcissism has significant influence on corporation communication. CEO narcissism can enhance use of linguistic complexity under the circumstances of reporting unfavourable performance, because CEO have strong motivations to conduct impression management for maintaining firms' reputations and engaging in image-enhancing behaviours [10]. Even though, the scholars found that during Q&A session of ECCs, CEO narcissism exhibits the negative relationship between linguistic complexity, which shows that one standard deviation increase in CEO narcissism is significantly associated with 9.69% standard deviation decrease in CEO obfuscation [16]. found that stock market reaction to ECCs is determined by sentiment rather than executives' genders and points that female senior managers usually use a more positive and less ambiguous tone in ECCs, but the disclosure does not contain incremental information and the only difference between male senior managers is linguistic feature. In the contrast, financial analysts exhibit gender bias in the participants of earning conference calls, who express more negative and ambiguous tones toward female executives.

## 5.2. Discussion and future research agenda

Firms with higher CSR performance is reasonable to conjecture that they are obligated to improve corporate communication quality and reduce information asymmetry among investors. The role of firms' CSR performance is to improve the informativeness of earning conference calls. And environmental and social performance impacts the managerial and analysts' tone in quarterly earnings conference calls, subsequently turning to explore the incremental effects of tones on returns in the post earning calls periods, which remains interesting. Firms regularly holding quarterly earning conference calls is a voluntary disclosure.

Impacts of hosting earnings communication conferences and management's tone on post-earnings-announcement drift (PEAD) are open to discussed. Investors hold views that stock liquidity can be improved if firms regularly hold earning conference calls. And management tone is positive, signalling good firms' operating performance and growth potential in returns. Lower semantic relevance of Q&A session signal that communication quality is still improving and investors could sell their shares to mitigate downward risks. In terms of managers' characteristics, CEO narcissism strategically uses linguistic complexity during ECCs. Besides, managers' use of humour in corporate disclosure signals that they show confidence in their firms and believe that their firms have better prosperity. The use of humour is typically recognized by a sophisticated machine learning algorithm in public earnings conferences calls, which is demonstrated by evidence.

The future research agenda focuses on under-explored correlation and consequences, which is suggested to exploring the correlation between ECCs with long-term corporate outcomes, such as corporate innovations, and how the semantic relevance of ECCs affect corporate investment. Besides, scholars may investigate how regulatory variations (e.g. mandatory vs. Voluntary ECC requirements) across jurisdictions moderate the relationship between ES incidents, tone differences, and market reactions. Moreover, future study could be behaviour finance-oriented explorations, scholars are recommended to focus on the different mechanisms, management traits (such as overconfidence) to explore their influence on how to shape ECC disclosure strategies.

## 6. Conclusion

Earnings Communication Conferences (ECCs) stand as a pivotal mechanism for information transmission in China's capital market, fostering interactions between firms and investors to alleviate information asymmetry. This review synthesizes findings from 15 recent studies, and emphasizes ECCs' structure, which consists of management presentations and interactive Q&A sessions, with the latter emerging as more informative due to its real-time engagement. In terms of methodology, textual analysis techniques, such as BERT for gauging Q&A semantic similarity and tone measurement using domain-specific lexicons, have enhanced assessments of communication quality, while metrics capturing managerial traits (e.g., narcissism, humour) reveal behavioural patterns in disclosure practices.

From a theoretical standpoint, information asymmetry theory underscores ECCs' role in balancing information access, particularly for retail investors, while signalling theory clarifies how cues like managerial humour or evasive answers convey implicit signals about future performance. Empirically, links are evident between ECC dynamics, including tone discrepancies, Q&A relevance, and CSR/ES performance—and market outcomes such as stock price reactions, analysts' forecast accuracy, and crash risk. Firms with stronger CSR performance tend to improve communication quality, while managerial traits like narcissism or myopia influence disclosure strategies.

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