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Sell-side analysts as social intermediaries

Guangyu Li[1] | **Crawford Spence**[2] | **Zhong Chen**[2]

[1]Bayes Business School, City, University of London, London, UK

[2]King's Business School, King's College London, London, UK

Correspondence
Guangyu Li, Bayes Business School, City, University of London, 106 Bunhill Row, London EC1Y 8TZ, UK.
Email: guangyu.li@city.ac.uk

Abstract
Recent research on sell-side analysts emphasizes the centrality of social ties and social interactions to what they do. However, we know little about how analysts create or maintain relationships over both the short and long terms. We remedy that in this qualitative study by illustrating the microlevel processes that analysts engage in as part of developing a network of relations around them. Starting from the premise that economic actions are embedded in social relations and drawing on interviews with analysts, fund managers, and investor relations officers in China, we show how analysts forge both weak and strong social ties to create an infrastructure of social networks that is foundational to information intermediation. This perspective broadens our understanding of sell-side analysts as social, rather than solely information, intermediaries and highlights how information asymmetries often have a social basis.

KEYWORDS
embeddedness, sell-side analysts, social infrastructure, social interactions, social ties

Les analystes des firmes de courtage en tant qu'intermédiaires sociaux

Résumé
La recherche récente sur les analystes des firmes de courtage met l'accent sur la place centrale qu'occupent les liens sociaux et les interactions sociales dans leurs activités professionnelles. Toutefois, nous en savons peu sur la façon dont les analystes établissent ou maintiennent des relations tant à court qu'à long terme. Nous remédions à

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cette lacune dans la présente étude qualitative en illustrant les processus de microniveau que suivent les analystes dans le cadre du développement de leur réseau de relations. En partant du postulat selon lequel les actions économiques sont enracinées dans les relations sociales, et en nous appuyant sur des entretiens avec des analystes, des gestionnaires de fonds et des responsables des relations avec les investisseurs en Chine, nous montrons comment les analystes tissent des liens sociaux, certains faibles et d'autres solides, pour créer une infrastructure de réseaux sociaux essentielle à l'intermédiation de l'information. Cette perspective élargit notre compréhension des fonctions d'intermédiaires sociaux, plutôt que de simples intermédiaires de l'information, que jouent les analystes des firmes de courtage, et met en lumière comment les asymétries d'information ont souvent une base sociale.

MOTS-CLÉS
analystes de firmes de courtage, enracinement, infrastructure sociale, interactions sociales, liens sociaux

1 | INTRODUCTION

Conventional economic theory interprets economic actions as being driven by rational decision-making in pursuit of self-interest. Such a perspective assumes that individuals and firms make decisions based on cost-benefit analysis (Muth, 1961), with minimal impact from social relations. Sociological perspectives, on the other hand, highlight the concept of "embeddedness," which emphasizes that economic actions are rooted in social relations and cultural norms (Polanyi, 2001). Granovetter (1985, 2018) offers a middle ground between these two perspectives, positing that individual action is influenced by economic utility within social networks. This approach recognizes that social networks provide access to information, resources, and opportunities, as well as imposing constraints and expectations. By drawing on Granovetter's theory of embeddedness and concept of social ties and supplementing this with literature on guanxi relationships in Chinese business, this study investigates how sell-side analysts operate within capital markets where information, resources, opportunities, expectations, and constraints are embedded in networks, paying particular attention to how social ties are carefully cultivated and maintained with both buy-side and corporate actors.

Mainstream studies on sell-side analysts, which are typically informed by conventional economic theory, tend to assume an information-driven model of investors' decisions. Under this assumption, sell-side analysts are portrayed as information intermediaries who collect data, calculate financial valuations, generate research outputs, and disseminate information (Bradshaw et al., 2017) to meet informational demands from buy-side clients. Recent studies (Brown et al., 2015, 2016; Kuchler et al., 2022; Maber et al., 2021) have challenged this view by arguing that social interactions with corporate management play a significant role in shaping the needs and decision-making of institutional investors. Despite this, the literature on sell-side analysts has largely neglected the relational aspects of investment decisions (Hwang, 2023; Kuchler & Stroebel, 2021). There remains a significant lack of understanding of the microlevel interactions that analysts undertake in capital markets despite decades of research on analyst work (Bradshaw, 2011; Ramnath et al., 2008). Indeed, recent studies have called for further examination of sell-side analysts' interactions with other actors in capital markets to better understand the social underpinning for investment advice and decisions (Bamber & Abraham, 2020; Millo et al., 2023).

In light of these calls for further investigation, this paper seeks to conceptualize sell-side analysts through the sociological lens of embeddedness. Empirically, we adopt a qualitative methodology, conducting 52 in-depth interviews with capital market participants in China—the world's second largest economy, where the embeddedness of economic actions has been well documented (Li et al., 2020; Piotroski & Wong, 2012) and where the sell-side analyst market is rapidly expanding. The Chinese analyst ecosystem, dominated by state-owned enterprises, comprised 140 securities firms as of 2022: 105 with major state shareholders, 24 private, and 11 international investment banks. While their origins and headquarters vary, most of these securities firms position their research departments in financial hubs like Beijing, Shanghai, and Shenzhen, where the three main Chinese stock exchanges are located.[1] The presence of major state shareholders in many of these brokerage firms highlights the impact of political forces in the financial sector. With the China Securities Regulatory Commission (CSRC) overseeing the activities of sell-side analysts, analysts in China must navigate guidelines regarding the diffusion of information, conflict of interest, and insider trading.

Our findings build on recent work on the social aspects of analyst work (Abraham and Bamber 2017; Bamber & Abraham, 2020; Bradley et al., 2020; Cohen et al., 2010; Do & Zhang, 2020; Fang & Huang, 2017; Graaf, 2018; Huang et al., 2022; Lee & Manochin, 2021; Spence et al., 2019). From this previous work, we develop the notion that analysts patiently build, maintain, and operate a social infrastructure that facilitates the subsequent flow of information and influences economic actions, including investment decisions and disclosure decisions. By social infrastructure, we mean the social ties that analysts forge with other capital market participants, notably fund managers and investor relations officers in companies. In the present paper, we demonstrate *how* this infrastructure is accreted via the myriad interactions between these groups. In turn, we show how the social infrastructure that they are central in creating not only satisfies investors' informational and relational demands but also constrains analysts by creating challenges for them in obtaining positive evaluations. This speaks to the wider theoretical insight that microlevel interactions create networks which, in turn, influence future microlevel interactions (Granovetter, 1973, 2017).

The paper makes several contributions to the literature on sell-side analysts and capital markets. First, it broadens the understanding of the role of sell-side analysts in capital markets. Specifically, we illustrate how analysts' informational roles have a social basis and offer evidence as to why they should not be evaluated based on their informational outputs alone. Second, we show how analysts need to exercise social skill—that is, the ability to interact with others in ways that keep future possibilities of collective action alive (Fligstein, 2001)—in deciding when a particular social tie needs to remain weak, be strengthened, be maintained, or be refreshed. Third, we show how information asymmetry in capital markets is often a reflection of social asymmetry, this being the uneven distribution of strong and weak ties.

The remainder of the paper is organized as follows. Section 2 offers a theoretically informed review of relevant literature on analysts, concluding with the introduction and justification of our research questions. We then introduce the research methods in Section 3, explaining our qualitative approach including data collection data analysis. Sections 4–6 present our main empirical findings around the construction and effects of social infrastructure in the market for information. Section 7 concludes the study reflecting on our main contributions to the literature and offering suggestions for future research.

[1]At the end of 2022, there are 140 brokerage firms in China employing 4,059 sell-side analysts, marking a 15% increase from the 3,530 analysts in 2021. These analysts cover approximately 60% of the 5,049 Chinese firms listed on the Shanghai, Shenzhen, and Beijing Stock Exchanges, collectively representing a total market capitalization of around $13.1 trillion (New Fortune Magazine, 2022).

2 | THEORETICAL FOUNDATIONS

2.1 | The embeddedness of economic action

The sociological concept of embeddedness was first proposed by Karl Polanyi in 1944 (Polanyi, 2001). Embeddedness *à la Polanyi* considers the economy to be immersed in social relations rather than being a separate and distinct sphere. Social actors exist within relational, institutional, and cultural contexts and cannot be seen as atomized decision-makers. In contrast, conventional economic theory tends to presuppose individual actors that behave in a rational manner based on rational expectations (Muth, 1961), whose behavior is influenced by market mechanisms and conscious utility calculations. The possibilities of long-term relationships—for example, between buyers and sellers—are ignored by many forms of economic analysis. Granovetter (1985) argues that both of these views suffer from the assumption of individual actors, one an over-socialized view based on social norms and the other an under-socialized view based on rational calculation. According to Granovetter (1985), any analysis of economic action as an analytically distinct phenomenon isolated from its surrounding social relations is flawed from the outset. Equally, viewing economic action as entirely determined by social context would be similarly implausible.

Granovetter (1973, 2018) further introduces the concepts of weak ties and strong ties. Strong ties and weak ties are distinguished along four dimensions: "the strength of an interpersonal tie is a combination of the amount of time, the emotional intensity, the intimacy, and the reciprocal service which characterize the tie" (1973, p. 1361). Specifically, weak ties represent casual acquaintances or distant relationships, while strong ties embody close, intimate relationships marked by emotional intensity, frequent interaction, and enduring reciprocity. Both function as critical elements in social network dynamics. Granovetter's (1973) main contribution was to point out that weak ties have more advantages in terms of obtaining and transferring information. Strong ties are characteristic of cliques and smaller networks (Granovetter, 2017) and so tend to produce redundant information, whereas weak ties form larger networks that effectively permit nonredundant information to travel greater distances. Weak ties are also presumed to be more central in obtaining influence and material outcomes such as job opportunities than strong ties because using personal relationships for instrumental purposes is often perceived as both high risk (actors do not want to jeopardize close relationships in this way) and morally objectionable (Kim & Fernandez, 2023). Therefore, theories of embeddedness, perhaps counterintuitively, tend to emphasize the importance of weak ties between acquaintances, rather than the strong ties between intimates, in building the necessarily social basis for economic action. These weak ties between economic actors accrete into larger scale networks that, in turn, then feed back into and influence the behavior of the small groups responsible for the evolution of these networks in the first place (Granovetter, 1973).

The accretion of these ties into larger scale networks constitutes what we call here a social infrastructure. The notion of infrastructure has become increasingly used across various social science disciplines in recent years. For example, in sociology, Pardo-Guerra (2019) refers to stock exchanges less by their front office trading activities and more by their back office "information infrastructures" which permit transactions to take place. This denotes the importance of computers, information systems and distributed knowledge in facilitating economic action. In accounting studies, the notion "calculative infrastructures" has been adopted by Foucauldian (Kurunmäki & Miller, 2013) approaches to refer to organizational efforts to systematically harvest quantitative data that can be used for performance measurement and management purposes. This concept has been expanded and recast as "evaluative infrastructure" to capture the plethora of nonfinancial and nonquantitative data that are used by organizations to coordinate economic exchange and activity on platforms (Kornberger et al., 2017). Each of these concepts of infrastructure refers to the importance of underlying systems and processes that permit economic calculation or exchange to take place. As such, they implicitly adopt an embeddedness perspective of sorts. Our concept of social infrastructure is in keeping with this emphasis on underlying systems but denotes specifically the social relationships that congeal in such a manner as to constitute conduits and channels through which information can be disseminated and economic capital to be transmitted. Indeed, recent work in economic geography highlights the importance of social networks to the organization of financial practices, something which has hitherto been somewhat eclipsed by a privileging of the technological aspects of infrastructures (Hall et al., 2023).

As influential as the "strength of weak ties" argument has been,[2] it is not without its critics, nor has it been immune to qualification by empirically driven work. In reviewing such work, Kim and Fernandez (2023) suggest that Granovetter may have understated the importance of strong ties in helping actors such as financial analysts elicit distant information (Yezegel, 2023). Also, in certain circumstances, strong ties may be a more efficient means of diffusing information. There may be cultural specificities to the "strength of weak ties" argument, too. For example, Bian (1997, 2022) finds that, in China, jobs are more frequently acquired through strong ties than weak ties. This challenges the universality of the notion that leveraging close personal relationships for professional reward is morally objectionable. In a country such as China, it is well documented that professional and personal relationships often overlap. The term "guanxi" (literally, "relationship" or "relation") is used to capture this (Yang, 2016). Guanxi has deep roots in Confucianism, emphasizing the importance of family, hierarchies, and social harmony. In Confucian societies, relationships and mutual obligations serve as the glue holding communities together (see also Chen et al., 2013; Qi, 2013). Guanxi, at first glance, might seem to approximate the embeddedness theory of Granovetter, but Yang (2016) points out that it differs by its emphasis on reciprocity, favors, and trust, which are all built out of relatively long-term interactions (Bian, 1997) and are the product of stronger, rather than weaker, ties. Although China has experienced profound changes politically, economically, and culturally in recent decades, recent studies suggest that guanxi remains an important cultural phenomenon that, if managed adroitly, can yield advantages at both the individual (Bian, 2022) and organizational (Nolan & Rowley, 2020) levels.

In a guanxi-driven economy, one would anticipate that the social relations formed between key actors in Chinese capital markets to be characterized by high degrees of reciprocity and trust, which are characteristic of strong ties. What is of interest for the purposes of the present paper is to understand how this reciprocity and trust might be brought about and how relationships are built and maintained between sell-side analysts, buy-side actors, and investor relations officers. In the next section, we will review literature on social ties between sell-side analysts and these other actors for clues as to what these social networks look like and how they are formed.

2.2 | Social ties and financial intermediaries

Sell-side analysts are important intermediaries in financial markets commonly perceived as possessing expertise in valuation and stock price movements (Bradshaw et al., 2017). This leads many scholars to focus on the cognitive attributes that analysts possess (Beunza & Garud, 2007; Graaf, 2023), their claims to expertise (Tan, 2014) or the tangible outputs and recommendations that they disseminate (Imam et al., 2008). A growing number of studies has started to recognize the importance of social ties on the quality of analysts' research reports as well. For example, Cohen et al. (2010) and Fang and Huang (2017) suggest that analysts who

[2]According to Kim and Fernandez (2023), Granovetter's papers on embeddedness and weak ties remain two of the three most cited sociological papers ever.

have common educational backgrounds with corporate management exhibit superior performance in earnings forecasts and stock recommendations. Additionally, Bradley et al. (2020) find that analysts with professional connections to company executives tend to issue more accurate forecasts and informative recommendations. Furthermore, research suggests that maintaining positive relationships with peers within the same team (Do & Zhang, 2020) or brokerage house (Huang et al., 2022) can benefit an analyst's research output. These studies indicate an informational advantage gained through social ties with various actors. On the other hand, studies also highlight how social ties of sell-side analysts can act as a source of bias rather than being used to improve research quality. For example, Gu et al. (2019) find that sell-side analysts may cooperate with socially connected fund managers in order to achieve a higher ranking in star analyst voting schemes, which can result in the issuance of more optimistic forecasts with lower accuracy. Overall, it is clear that the social ties that bind analysts to others in the investment space govern analyst behavior in myriad ways (Millo et al., 2023).

Some studies have begun to scrutinize the social interactions between sell-side analysts and other market players (Abraham and Bamber 2017; Bamber & Abraham, 2020; Graaf, 2018; Lee & Manochin, 2021; Spence et al., 2019), revealing the intricate dynamics underlying these social dimensions of analyst work. Indeed, studies by Brown et al. (2016) and Cen et al. (2021) have begun to question the traditional view that the output of sell-side analysts is exclusively information-centric. These studies point toward the social connections that analysts forge with key actors rather than analysts' target prices or earnings calls. In other words, they highlight the social rather than the informational aspects of analyst work, although they notably do not document in detail the microlevel processes that analysts and their interlocutors engage in to form, strengthen, and maintain social ties. Indeed, Bamber and Abraham (2020) call for more research looking at the "micro interactions" of financial market participants so as to reveal the otherwise opaque "backstage" of how investment decisions and recommendations are made. This is of particular interest for a Chinese context, where relationships are forged in culturally specific ways. This gives rise to our first research question:

> **Research Question 1 (RQ1).** How do sell-side analysts in China go about building and maintaining social ties with other key participants in capital markets?

This question is unique because it focuses on the processes that analysts engage in to build relationships and trust. It is important to explore because it may reveal that the route to being a successful analyst in China requires different kinds of social skill (Fligstein, 2001) as compared to other contexts. We tend to think of financial analysts as engaged in highly cognitive and technical practices and, indeed, the curricula of professional analyst designations such as the Chartered Financial Analyst (CFA) reflect this view. Such designations emphasize the importance of financial analysis and modeling, mathematic, regulatory, and industry knowledge, as well as communications skills. Yet the emphasis here on building social infrastructures and maintaining open-ended possibilities of collective action denotes both a different type of skill set and a different suite of dispositions that goes significantly beyond communication skills. Understanding analysts as primarily social rather than financial intermediaries suggests that we need a different set of conceptual frameworks to make sense of their activity. This is likely to be true of financial intermediaries in general, too.

Relatedly, a key aspect of Granovetter's embeddedness and attendant weak ties thesis is the way in which the social infrastructure that actors themselves build comes back to influence their own future microlevel interactions. For the purposes of the present paper, this means that analysts create a social infrastructure that enables their own positioning as central to information intermediation in capital markets, but that they will also become subject to the constraints that such a social infrastructure might impose. It would be worth exploring these unintended consequences of relationship-building to see further how economic actors navigate social rules. This gives rise to our second research question:

> **Research Question 2 (RQ2).** How do the social ties that sell-side analysts forge constrain, as well as enable, their ability to play a persistent role in capital markets?

Identifying any constraints that analysts experience as a result of the social infrastructure that they themselves help create will help us build more sophisticated theories about the ways in which economic action is embedded in social relations in the Chinese context.

3 | RESEARCH DESIGN

A qualitative methodology was identified as the best means of exploring the web of relationships that sell-side analysts spin around themselves. We therefore undertook in-depth interviews with analysts, fund managers, and investor relations personnel in companies, probing these individuals on their interactions with each other and building on recent qualitative approaches to studying financial analysts (Graaf, 2018, 2023; Millo et al., 2023).

3.1 | Data collection

The data collection involved a total of 52 in-depth interviews, which included 26 sell-side analysts covering different sectors, ranging from junior analysts to directors of research departments; 7 sell-side sales team members covering different types of clients; 5 corporate investor relations officers; 10 buy-side fund managers of different types of funds; and 4 buy-side analysts. Among the respondents, gender distribution in our sample reflected the wider imbalances of job occupations in the field, with 12 out of 52 being female (6 sell-side analysts, 3 sales team members, 1 Investor Relations Officer [IRO]; 1 buy-side fund manager, and 1 buy-side analyst). Additionally, the composition of the analyst sample is largely in line with the state-led Chinese analyst ecosystem. Among 26 sell-side analysts, 19 work for state-led securities companies, 5 for privately-owned securities companies, and 2 for China branches of global firms. Collectively, our interviewees fall into one of the three key actors in the “market for information” (Barker 1998): company management, sell-side analysts, and the buy-side.

The interviews were conducted between July 2020 and October 2021, with interviews lasting an average of 45 min. The participants were identified using a purposive sampling approach (Palinkas et al., 2015), which involved identifying individuals who had relevant experience and knowledge about the sell-side analyst profession. This sampling method ensured that the respondents were knowledgeable about the research topic and were able to provide rich, detailed insights into their experiences and practices. The sample was driven by the need to fully capture the depth and breadth of the phenomenon, and data collection ceased once themes started to recur with minimal variation (Glaser & Strauss, 2017). A summary of interviewees is provided in Table 1. Initially, the research team experienced difficulty in enlisting participants until a family member of the main author used their alumni connections to establish preliminary interviews. After this, we were able to snowball additional contacts. Far from being a trivial methodological footnote, this was an early lesson in the importance of leveraging strong ties (with the family member) to access social networks.

A semi-structured interview protocol was initially developed to guide the data collection process. This protocol consisted of open-ended questions designed to encourage respondents to freely discuss their experiences and practices. The questions focused on the daily activities of sell-side analysts, what their main roles and functions were perceived to be, the social ties and

TABLE 1 Summary of interviewees.

Interviewee #	Position	Date
1. SS1	Analyst	July 16, 2020
2. SS2	Chief analyst	August 12, 2020
3. SS3	Former chief analyst	September 7, 2020
4. SS4	Chief analyst	October 15, 2020
5. SS5	Analyst	October 25, 2020
6. SS6	Former senior analyst	November 29, 2020
7. SS7	Analyst	December 20, 2020
8. SS8	Intern analyst	January 11, 2021
9. SS9	Chief analyst	January 15, 2021
10. SS10	Chief analyst	February 26, 2021
11. SS11	Senior analyst	March 29, 2021
12. SS12	Chief analyst	April 1, 2021
13. SS13	Chief analyst	April 1, 2021
14. SS14	Senior analyst	April 1, 2021
15. SS15	Analyst	April 2, 2021
16. SS16	Senior analyst	April 28, 2021
17. SS17	Analyst	April 30, 2021
18. SS18	Senior analyst	May 1, 2021
19. SS19	Analyst	June 23, 2021
20. SS20	Director of research institute	June 30, 2021
21. SS21	Senior analyst	June 30, 2021
22. SS22	Analyst	June 30, 2021
23. SS23	Chief economist	July 9, 2021
24. SS24	Chief analyst	July 14, 2021
25. SS25	Chief analyst	July 19, 2021
26. SS26	Analyst	July 26, 2021
27. SS27	Retail sales	January 23, 2021
28. SS28	Institutional sales	April 30, 2021
29. SS29	Institutional sales	June 23, 2021
30. SS30	Institutional sales	July 8, 2021
31. SS31	Institutional sales	July 15, 2021
32. SS32	Institutional sales	July 15, 2021
33. SS33	Director of sales team	July 22, 2021
34. BS1	Analyst	March 21, 2021
35. BS2	Fund manager	July 9, 2021
36. BS3	Investment manager	July 12, 2021
37. BS4	Fund manager	July 13, 2021
38. BS5	Fund manager	July 14, 2021
39. BS6	Analyst	July 19, 2021
40. BS7	Analyst	July 19, 2021
41. BS8	Investment manager	July 19, 2021
42. BS9	Analyst	July 21, 2021

TABLE 1 (Continued)

Interviewee #	Position	Date
43. BS10	Investment manager	July 22, 2021
44. BS11	Fund manager	July 22, 2021
45. BS12	Fund manager	August 31, 2021
46. BS13	Fund manager	October 10, 2021
47. BS14	Fund manager	October 13, 2021
48. IR1	Director	July 7, 2021
49. IR2	Director	July 9, 2021
50. IR3	Director	July 12, 2021
51. IR4	Former director	July 13, 2021
52. IR5	Director	July 13, 2021

networks they relied upon, the depth or casualness of social ties with other financial intermediaries, any overlaps between personal and professional connections, and the influence of these networks on the evaluation of their performance and career outcomes. After conducting nine pilot interviews with sell-side analysts in late 2020 to early 2021, the interview protocol was refined to reflect and incorporate themes and questions that were not originally envisaged but emerged through the course of the pilot interviews, as recommended by Morse et al. (2002). Our interview protocol can be found in the Supporting Information.

In consideration of the linguistic and cultural context of our empirical site, all interviews were conducted in Mandarin Chinese to allow for a more nuanced and free-flowing conversation. Pilot interviews were fully translated into English to validate the initial themes and questions. For the subsequent interviews, only selected quotes related to our research questions were translated. These translations were meticulously undertaken by bilingual research team members who are well versed in both the technical vernacular of finance and the cultural nuances of Mandarin.

3.2 | Data analysis

The data analysis process was guided by the Gioia methodology, which involves an iterative and inductive approach to identifying, analyzing, and reporting patterns or themes within the qualitative data (Gioia et al. 2013). This method is particularly suitable for analyzing data from in-depth interviews, as it allows us to closely follow the participants' perspectives and experiences while simultaneously engaging with the existing literature. The coding process that we followed is captured in Table 2, consistent with the approach followed by other studies of elite networks (Dacin et al., 2010) and financial intermediaries (Paugam et al., 2021).

The first step in the Gioia methodology involved familiarizing the authors with the data by reading and rereading the interview transcripts. During this process, we made notes and highlighted relevant sections of the transcripts, focusing on capturing the informants' voices and interpretations of their experiences. Next, we generated first-order codes using NVivo, which are descriptive labels that directly reflect the participants' statements. We independently coded the data, systematically identifying and labeling patterns and recurring themes. We then grouped these first-order codes into second-order themes, which represented broader categories or concepts that helped to make sense of the first-order codes such as the building of social ties and relational demands. These second-order themes were compared and contrasted with the existing literature to refine our understanding of the phenomenon and identify any gaps or new

TABLE 2 The social ties, work practices, and functions of sell-side analysts.

<table>
<tr><th>First-order codes</th><th>Second-order themes</th><th>Third-order aggregates</th><th>Fourth-order aggregates</th></tr>
<tr><td>Assess corporate governance
Raw information on firm performance
Exert influence on others during interactions
Improve investment confidence</td><td>Investors' access to company management</td><td rowspan="3">Relational demands</td><td rowspan="9">Building and maintaining a social infrastructure</td></tr>
<tr><td>Alternative sources of information
More credible sources of knowledge
Alternative opinions</td><td>Investors' access to industry experts</td></tr>
<tr><td>Finance purposes
Better social connections with investors</td><td>Firms' access to investors</td></tr>
<tr><td>Reputation of organizations
Prestigious educational background
New Fortune Star analyst ranking
Research quality</td><td>Build reputation and improve influence in market</td><td rowspan="6">Forging social ties</td></tr>
<tr><td>Mutual recognition of reputation
Alignment of values
Good personality and sincerity</td><td>Cultivate initial connections via reputation and aligned values</td></tr>
<tr><td>Leverage social networks of senior peers
Get introduction by corporate insiders</td><td>Cultivate initial connections from existing networks</td></tr>
<tr><td>Relational corporate site visits
Write in-depth reports
Frequent personal interactions</td><td>Transform weak ties to stronger ties through frequent interactions</td></tr>
<tr><td>Keep in touch and maintain interactions
Banquet, gifts, favors, entertainment</td><td>Maintain dynamic weak and strong ties</td></tr>
<tr><td>Facilitate one-to-one meetings
Create private social groups
Arrange large-scale conferences and joint site visits</td><td>Broker social ties: arrange and facilitate meetings</td></tr>
</table>

TABLE 2 (Continued)

First-order codes	Second-order themes	Third-order aggregates	Fourth-order aggregates
In-depth knowledge of firm and sector	In-depth knowledge about covered sectors and firms	Informational demands	Information flows through the social infrastructure
Foresight of industry trend			
Latest news and policies	Trading-relevant information		
Sentiment and opinions of other investors			
Financial models and data support			
Underpriced stocks			
Soft information during site visits	Embedded information acquisition	Embedded information acquisition and dissemination	
Validation of performance through interactions			
Network of experts and social learning			
Information from supply chain actors			
Insights and suggestions from buy-side			
Research reports to wide audience	Embedded information dissemination		
In-person private meetings with clients			
Commission generation	Employers' evaluation	Evaluations of analyst performance	Infrastructural constraints on analysts
Analyst ranking by financial magazines			
Assessment from clients			
Rates and votes based on research quality	Clients' evaluation		
Rates and votes based on relational services			
Rates and votes influenced by social ties and emotions			
Self-evaluated as objective researcher	Analysts' self-evaluation and personal strategies		
Self-evaluated as businessman aiming for profit			
Self-evaluation and work strategies			
Superior relationships, timelier information	Exacerbated asymmetry of information	Asymmetries of both information and social connectedness	
Private information within private social groups			
Small investors lose chances	Exacerbated asymmetry of social connectedness		
VIPs get better relational services			

insights. Subsequently, we collapsed the second-order themes into third and fourth-order aggregate dimensions, which are higher-level conceptualizations that permit theory building. The final, fourth-order aggregate dimensions that we identified during this process—building and maintaining a social infrastructure, information flows through the social infrastructure, infrastructural constraints on analysts—help organize the data so that we can directly answer the research questions and have helped to structure the empirical narrative below.

Throughout the data analysis process, we engaged in regular meetings to discuss findings, interpretations, and potential biases. This collaborative approach ensured that we considered multiple perspectives, enhancing the trustworthiness and credibility of the analysis.

4 | BUILDING AND MAINTAINING A SOCIAL INFRASTRUCTURE

From our coding process, we identified various relational demands that were regularly made of sell-side analysts' clients. These demands involve requests for social connections with other actors, such as company management, industry experts including supply chain actors, technicians, regulators, and scholars. Relational demands take various forms and are influenced by factors such as power dynamics and the perceived connectivity of particular analysts. In the following subsection, we present some key findings from our coding process that illustrate how the social infrastructure in the market for information accretes with the satisfaction of each of these relational demands. Specifically, we highlight the social ties that are formed between analysts, industry experts, company management, and institutional investors.

4.1 | Relational demands

Institutional investors often seek connections with company management and rely upon the sell-side to forge these connections, or perhaps to reshape already existing connections in some way. As is evidenced by the following quote, multiple agendas may be at play at any one time in such scenarios:

> Some buy-side clients wish to visit the management team of listed firms via sell-side analysts. Generally, sell-side analysts are important in this process. However, it's difficult for us to determine their intentions. For instance, the two groups may know each other already. The clients just want to have influence on us, the sell-side analysts, to promote the firms they have bought. In other words, their goal is to gain an advantage over us. (SS Analyst 10)[3]

This quote from a sell-side analyst highlights the complexity of being in between buy-side clients and the companies they invest in. The buy-side client's request for connections with company management through sell-side analysts is not always related to the acquisition of information from the company, as is commonly understood. Instead, the client may be seeking to embed the analyst into an existing relationship so that they feel part of it and compelled to nurture and support it going forward. This relational work often makes sell-side analysts feel less like investment professionals and more like travel agents:

> I feel like I'm a travel agent. On one hand, I take the company management of domestic firms to Hong Kong to meet global investors. On the other hand, I take the investors to visit China to meet people including company management.

[3]Hereafter, "SS" refers to sell-side, "BS" to buy-side, and "IR" to the investor relations department of listed firms.

> However, during the private meetings, the non-deal roadshows, analysts are not allowed to sit in the room. (SS Analyst 3)

Just as travel agents do not actually go on holiday with the customers that they arrange holidays for, analysts often find themselves excluded from the information exchange that takes place between their fund manager clients and company management. In this regard, they are not themselves conduits for information. Rather, they help build the conduit through which information can flow from investee to investor.

This view is supported by buy-side actors too, such as the following mutual fund manager, who praises the importance of analysts in providing connections with listed firms:

> For firms I've researched well, I don't need any roadshow from analysts to have a better understanding about firms. What I need is that they arrange the meetings with company management for me. I seldom make investment decisions without in-person communications with company management. (BS Manager 4)

This quote implies that no prior connection exists between the fund manager and the company management. The fund manager therefore leverages the existing social ties between the analyst and the company in order to benefit from the social interactions that are central to much investment decision-making (Cohen et al., 2008; Kuchler et al., 2022).

Social ties between actors in the field may be strong or weak. For example, an investor relations director highlights how stronger social ties both alter firms' disclosure decisions and influence investors:

> Regarding company news, why do you think analysts build strong interpersonal relationships with us? Those statements are released by me. I have the USB key to release the statements. I can quickly notice if it is harmful to my friends. You know, we have our friends behind us. . . . Analysts, especially star analysts, also have their friends behind them to support their work. Some research reports always get an immediate positive reaction from the market. (IR Director 4)

This statement speaks to the importance of cultivating strong, rather than weak, ties. The IR director's use of the word "friends" rather than "clients" or "service providers" is not casual. It denotes a distance less than arm's length, a density in networks that keeps friends, and friends of friends, working in concert to the same end, contrary to how things would ideally work in a principal-agent scenario.

Institutional investors rely on sell-side analysts to connect them with supply chain actors, scholars, technicians, regulators, and policy-makers. These groups comprise a grouping of "industry experts" who possess specialized knowledge in specific sectors, technologies, or regulatory environments:

> Buy-side clients need access to industry experts related to their sectors and listed firms. In the Internet sector that I'm covering, these experts include technicians, policy-makers, etc. While we explain the policies and infer information from the policy, policy-makers are the people who made the policies and therefore have superior understanding. . . . Access to industry experts is important. Their opinions are more objective without the impact from the market. Besides, their analysis is more cutting edge. (SS Analyst 19)

Interestingly, this quote suggests that sell-side analysts themselves are not always trusted as information intermediaries due to the "impact from the market," the influence from the social infrastructure that they are building and embedded in. Redundant information and pressure from various groups of actors can influence analysts' views. Sell-side analysts, being aware of their limitations as knowledge providers, play a crucial role in bridging the social ties between institutional investors and industry experts.

Listed firms also make relational demands, seeking connections with investors through sell-side analysts. These connections can be crucial for firms in terms of raising capital, gaining market exposure, understanding investors' perspectives, and even obtaining competitive information (Martens & Sextroh, 2021). Despite the fact that listed firms do not compensate sell-side analysts for these services, analysts still comply with these requests. The investor relations director of a listed firm provides insight into the process of these requests:

> When we are unsatisfied with the current stock price and want to do something, firstly we need to communicate with sell-side analysts about our strategies. I need to know their opinion about our strategies. After the communications, they can take us to visit more buy-side actors. They say "please travel to Shanghai," and they will arrange 13 fund managers to have a meal together to discuss things. . . . Every time I travel to Shanghai, Beijing, and Shenzhen, the stock price of my firm always goes up on the same day. (IR Director 4)

This quote highlights the importance of social interactions with institutional investors for listed firms. The company IR director emphasizes the role of sell-side analysts in providing social connections as a key step in stabilizing or increasing stock prices. He also stresses the importance of actively seeking in-person interactions with investors, rather than simply waiting for them to visit the firm's headquarters. Previous studies suggest that social ties between firms and investors can reduce the cost of equity capital (Luong & Qiu, 2021), providing a direct economic rationale for firms' requests for social connections with investors. The casual reference to eating a meal is not insignificant either. Guanxi is forged through gifts, banquets, and favors (Yang, 2016), and culinary participation is an important ritual in the establishment of professional ties in the Chinese context.

4.2 | Forging social ties

Rather than being by-products of their daily activities, social ties are actively forged, managed, and brokered to meet the relational demands specified above. This multi-stadial process involves conscious and active effort on the part of sell-side analysts and, if successful, results in the construction of a de facto social infrastructure that interested parties can tap into as necessary.

Sell-side analysts need to establish a strong reputation as knowledgeable and reliable experts in their field, showcasing their capacity to exert influence over market participants. A good reputation and strong influence in the market helps analysts gain credibility and trust from institutional investors and firms, which in turn facilitates the formation and management of social ties. This can be achieved through various means including: producing high-quality research; demonstrating deep industry knowledge; accurately predicting market trends and stock performance; moving to higher-tier employers; appearing in star analyst rankings; and so on. For example, sell-side analysts can rely on the reputation of their employer to gain entry into existing networks in the field, particularly during the early stages of their career:

> The process of getting access to management is an issue of dealing with people. The name of "Goldman Sachs" is enough for me to access many people. (SS Analyst 3)

This quote indicates that well-established brokerage firms are viewed as more reputable, and thus the analysts from these organizations have a higher likelihood of being granted access to management than analysts from smaller firms. Additionally, the influence of the individual analyst plays a role, with analysts who are well known and respected in the market having greater access to management. A highly ranked analyst explains it this way:

> The analyst must rely on themselves to make others responsive to their reports or to arrange meetings. For example, they can be very famous because of their research. They can be famous because of attending the economic forum of central government. In my case, I did not have my own book before. A long resumé and an introduction are needed to explain why I am an excellent analyst. Now with the publication of my own book, I do not need to present my achievements to show how good I am. This distinguishes a good analyst from ordinary analysts. (SS Analyst 3)

This quote highlights the importance of brand building for analysts in order to be incorporated in social interactions by both buy-side and company management. The analyst mentions that credibility can be demonstrated through high-quality research and attendance at central government economic forums and states that the publication of a book is a significant way to distinguish oneself as a reputable analyst. This is consistent with the findings of Spence et al. (2019) that research credibility is not an end in itself but a means to in-person interactions with clients. In this way, analysts' reputations can act as a legitimizing factor that grants them entry into the field, allowing them to then cultivate social ties with various actors:

> The core point is gaining recognition from others through in-depth research. Then analysts can provide them with information to build and establish a long-term social tie. (SS Analyst 1)

According to this quote, the process of cultivating connections with target actors involves first of all recognition of reputation or influence. Other interviewees also emphasized moral criteria and shared values, which we know are important aspects of cultivating strong ties and building trust (Granovetter, 2017):

> If we don't agree with each other's values, that's not OK. For example, some analysts just mess around and sneakily look for private information. We don't like this kind of guy. (IR Director 3)

> They have to be relatively sincere. I think the core points are universal. (BS Fund Manager 4)

Sell-side analysts can tap into their existing networks to form new connections. By leveraging relationships with their current contacts, they can gain introductions to expand social ties efficiently and effectively. In this regard, they use stronger ties to develop weaker but beneficial ties with more socially distant actors. This is a common practice for analysts seeking access to top-level company management, as investor relations officers often act as gatekeepers for such actors:

> Imagine you are an analyst, after you get familiar with the IRO and have a strong relationship with them, the IRO will think that you may have some requests, or they may also think that the chairman and general manager should be introduced to you. The chairman and the general manager don't meet the sell-side analysts very often. (SS Analyst 9)

This quote illustrates that by being familiar with IR officers, sell-side analysts can gain access to top company management via introductions, highlighting the importance of developing and diversifying networks as a means of gaining access to new actors. This is further supported by the statement of another IR director, who confirms that it is not only sell-side analysts who are relationship brokers, but IR directors too:

> Now, as a director of the IR department. We are bridges of actors too. There is a bridge between the company management and the sell-side analysts. In fact, sell-side analysts are between us and the buy-side actors, which is actually very important. (IR Director 4)

The quote highlights the myriad social brokering that goes on in the market for information, with multiple actors connecting each other, leveraging strong and weak ties all the time to build up the social infrastructure that can connect actors via different pathways.

Sometimes, weak ties remain weak ties, and this is productive enough for professional purposes. In other instances, it is propitious to try and strengthen ties by engaging in frequent interactions. These interactions can take various forms, including professional and formal interactions, such as headquarter site visits and conference calls, as well as personal and informal interactions, such as social events and casual conversations. Formal interactions are more important in the early stages as they provide the opportunity for analysts to showcase their expertise and contribute to the development of long-term social ties:

> At the beginning, my connection with the listed company was more based on the reputation of my employer. But in the process of business, you may need to be more social to develop and maintain a better relationship. So, you must show an in-depth report at the later stage. An in-depth report, or a report that is recognized by the market or the company, is a way to strengthen your relationship and make it more material. (SS Analyst 12)

The foundational nature of these formal interactions is also confirmed by company interviewees, who highlight the relational value of frequent corporate site visits:

> Of course, those analysts who visit us more frequently would have better relationships with us. If you just visit our company once a year, there is no reason for me to get to know you in detail. But if you call me twice a week and have some conversation, visit us every month, it will just take around 3 months for us to get to know each other. (IR Director 3)

There is no sense in the above quote that the relationship between the IR director and the hypothetical sell-side analyst is personal at all. Equally, speaking twice a week and visiting once a month is indicative of something a little more than a weak tie as by that stage the two individuals are more than mere acquaintances. Regular interaction is important in order to keep future opportunities alive and open:

> We need to keep good relationships with listed companies. Because you don't know when a particular sector is going to be popular. So, you need to keep relationships going. By doing so, when the bull market comes, you can go to meet them easily. (SS Analyst 12)

In this regard, regular visits with no particular informational purpose are necessary in order to maintain an ecosystem of social ties. Such visits could be formal or informal, professional, or personal. Such meetings are nevertheless purposeful in the longer term as they ensure that future information conduits remain open. Many of these meetings appear to be more personal than professional, although it is perceived that the one is a necessary gateway to the other, possibly reflecting Chinese cultural norms (Yang, 2016). This is consistent with Cheng et al. (2016), who find that only 16% of corporate site visits are followed by follow-up updates of earnings forecasts in the month after site visits and suggests that the majority of site visits are not solely focused on obtaining information, but rather on maintaining relationships with corporate management.

One further indication of the blurring between personal and professional boundaries is reflected by the growing use of the social media platform WeChat—historically, a personal digital space but since expanded into the professional realms as well—as a medium for information dissemination:

> For offline, medium, and large conferences, such as strategy conferences, conferences for special topics like cyclical industry summits, and conferences of the machinery sector, large meetings of consumption sectors, etc. What we are talking about has now been expanded. It may be called conference call before, and now it also includes online WeChat groups. WeChat groups are now a very important channel. (SS Analyst 9)

Overall, whether via social media platforms, phone calls, meals, cups of tea, or other face-to-face interactions, sell-side analysts expend a considerable amount of effort cultivating and maintaining social ties with actors that can subsequently facilitate the dissemination of nonredundant information (Kim & Fernandez, 2023) and guide economic action (Granovetter, 2018). They engage in the serious and purposeful building of a social infrastructure.

5 | SOCIAL INFRASTRUCTURE THAT FACILITATES INFORMATION FLOW

The infrastructure of social networks that sell-side analysts build and maintain facilitates information flow in the "market for information." In turn, the social infrastructure itself often guides the decisions of actors within it, as seen from institutional investors' relational demands that exert influence over specific actors and company management's consideration of investor relations before significant announcements. This aligns with Millo et al. (2023), who suggest that analysts operate within a governing social structure. By analyzing sell-side analysts' informational practices, this section demonstrates how information is embedded in social networks and flows through dynamic weak and strong social ties.

Consistent with received wisdom on the topic (Bradshaw, 2011; Bradshaw et al., 2017; Brown et al., 1987; Ramnath et al., 2008), we confirm that sell-side analysts' informational practices are mainly required to satisfy informational demands from institutional investors in order to aid their investment decisions. Institutional investors expect sell-side analysts to provide in-depth knowledge about firms, industries, and market trends as well as trading relevant information about who is doing what in the market vis-à-vis particular stocks.

In line with previous research, which has emphasized the importance of site visits as a vital channel for analysts to acquire superior information and insights (Cheng et al., 2016, 2019), the embedded nature of corporate information was confirmed by the following analyst, who points toward the role of social ties in ensuring harmonious relations with company management:

> You need to visit the listed firms onsite. I often ask some questions from the company management to find responses, answers, and explanations. If you can do well with the company management, everyone will think that you can become the spokesperson of the listed company, and the information or research opinions will be more credible. (SS Analyst 9)

This suggests that building strong relationships with company management through site visits can enhance the quality of information obtained and credibility of the analyst's research, which might seem counterintuitive as becoming the spokesperson for company management is used in other cultural contexts as a slur on analysts who are seen as insufficiently independent of the companies that they cover (Feng & McVay, 2010).

In addition to this currying favor with management, the social infrastructure that analysts build with industry experts is also a means of obtaining valuable information and insights:

> For example, when I was in Beijing, I was close to policy-makers, close to big oil companies, I naturally came to know a lot of things as a result of these connections. This part was enough for me to be valuable for clients. (SS Analyst 3)

Coming to know "a lot of things" via these connections illustrates how the social and the informational exist in a mutually reinforcing fashion. Tapping into expert networks is essential to fill the gaps left after desk research has been exhausted, as the following analyst illustrates via the example of a legal decision on a specific company that they were struggling to interpret:

> If Trump wants to block WeChat, what will be the impact on Tencent? Do I need to understand the situation in the United States? Do I need to understand the relevant laws in the United States? And whether it is possible to block WeChat so quickly? Those are not in my knowledge reserve; I need to quickly study those. How do I find a person to help me fill this knowledge gap? If I can search for clear answers on the Internet, then I may not need to bother. Otherwise, I may have to inquire about this matter to someone to help me make a judgment. (SS Analyst 2)

This quote demonstrates clearly how the informational practices of sell-side analysts are heavily embedded in social ties and collaborations. Collaboration with others is necessary to fully grasp the complexity of firm operations.

Analysts also engage in interactive communication with clients, such as conference calls, webinars, and one-on-one meetings, which allow them to provide tailored insights and respond to specific questions or concerns. By maintaining close relationships with clients and other stakeholders, analysts can ensure that their information is effectively disseminated and that they are well positioned to address any additional informational demands that may arise. Another sell-side analyst points out that in-person communications provide a more interactive and authentic exchange of information:

> Because there are some norms about reports, a lot of things are not convenient to describe in detail in the report. In addition, some reports may serve for investment banking business. Other factors also can influence the content of the reports. I think it is more casual to communicate privately. It's more interactive and the information is more real. (SS Analyst 10)

Consistent with research showing that face-to-face interactions are important in building trust and ergo in forging stronger social ties between individuals (Granovetter, 2017), this analyst highlights the importance of such interactions to the communication of nonredundant ("real") information (Kim & Fernandez, 2023).

6 | SOCIAL INFRASTRUCTURE AS A CONSTRAINT ON ANALYST ACTIVITY

While the previous sections illustrated how social ties enable sell-side analysts to function as variously social intermediaries (Section 4) and information intermediaries (Section 5), this section discusses how social ties can act as constraints on analysts' positioning and status in the market for information. In other words, the social infrastructure that analysts themselves are instrumental in building can also work against analysts despite their best efforts to maintain harmonious relations with other intermediaries. We also show how asymmetric social ties are a primary source of information asymmetry in capital markets, which is a further illustration of how the social and the informational exist dialectically.

6.1 | Evaluations of analyst performance

Analysts in China are evaluated across two principal axes: generation of commissions and ranking schema. These evaluations are influenced respectively by analysts' employers and their buy-side clients, both of whom are heavily influenced by the social infrastructure within which all these actors are embedded. Some interviewees highlight the importance of commissions in evaluating analysts, but there was a general consensus around the increasing importance of analyst ranking schemes. It is to these investor-driven evaluations that we now turn as they illustrate forcefully the way in which social ties can open up or close down possibilities for analysts.

As noted above, in-person interactions are important in garnering richer information from contacts. Such interactions are also perceived to be more effective in influencing client evaluations of analyst performance:

> In fact, as a sell-side analyst, what we need is to earn commissions from buy-side clients who rate us. Sadly, research reports may not be a very direct contribution, but it is easier to get commissions if we provide direct services to customers, such as roadshows and reverse roadshows. (SS Analyst 13)

Many fund managers are clear that social ties are considered in analyst voting and commission allocation. The voting process was described by various respondents as something of a game, where institutional investors are pestered and harangued to vote in particular ways. Indeed, the rewards associated with being a star analyst are sufficiently high for analysts to allocate a separate budget for relationship-building with clients during the final canvassing period for the New Fortune star analyst contest:

> Under normal circumstances, and the cost of getting votes in popular sectors during the final canvassing period for the New Fortune is probably at least CNY 300,000 to 400,000. Though the most popular sectors would need more than 1 million CNY. (SS Analyst 20)

While this paper focuses largely on the relationship between informational and social factors, it is important to bear in mind that the stakes are high economically and that financial factors play an important role, too, in shaping interactions in the market for information. Indeed, some respondents were quite forthright in drawing these linkages themselves:

> In the end, the ultimate question is how to make money. It may be vulgar, but that is the reality. For example, when I have good relationships with clients, other relationships matter less. If I have a good relationship with listed companies, I even dare to touch the gray area and will run away after making money. (SS Analyst 19)

This quote, in which the interviewee depicts the behavior of others, illustrates clearly the perception that some analysts may utilize less ethical or illegal means to make money which, if brought to their attention, would fall afoul of the CSRC and the Securities Association of China (SAC).[4] Moreover, such behavior might be exacerbated by the evaluations that the analysts are subjected to. In contrast, other respondents distance themselves from ranking schema by reference to a more virtuous self-evaluation. For example, one famous analyst who frequently appears on various media platforms and who had just left his job as a result of political pressures from Beijing,[5] wrote the following in his blog around the time of data collection:

> In the analyst voting, there are about two ways to get votes: 1) "caretaker-style" client services, including delivering breakfast and lunch to clients, picking up clients' children from school, giving gifts to clients, arranging tickets for entertainment, and traveling. Daily greetings and phone calls, etc.; or 2) do researcher's duty, independently think, take a different path, and make real research that goes against the consensus of the market and is constantly validated. At the end of this, it's a choice about how to live your life. I've made my own choices.

This is a remarkable quote for a number of reasons. First, the "caretaker-style" services that some analysts offer their clients go way beyond what one might expect from what on paper appears to be a weak tie—an acquaintance rather than a friend. Second, the quote is interesting because the author clearly places himself in the virtuous second camp, focused on doing research that is good for its own sake. In this regard, developing strong social ties that blur the professional and the personal is indeed cast as morally objectionable (Kim & Fernandez, 2023), showing how the gifts, banquets, and favors (Yang, 2016) commonly associated with guanxi capitalism are not universally accepted as normal practices by all Chinese financial intermediaries. Such virtue signaling was not universal, however. Indeed, many other interviewees could provide examples of how the provision of client services can obfuscate the line between professional and personal interactions. The following quote is indicative of this:

> Whether they are company management or buy-side clients, there are value-adding small services available for them. For example, if an analyst covers the banking sector, they might assist clients in applying for a better credit card. Those who focus on the real estate sector often accompany clients on tours of houses and flats. Analysts covering the pharmaceutical sector can offer recommendations and introductions for hospitals or doctors, while those specializing in the Internet and gaming sectors may provide game guidance. (SS Analyst 20)

[4]The CSRC is the main regulator of the securities industry in China, while the SAC functions as a self-regulatory organization for the securities industry. Both the CSRC and SAC have established numerous rules and codes of conduct for sell-side research professionals. These regulations strictly prohibit behaviors such as disclosing insider or unreleased material information, as well as engaging in the exchange of benefits with listed companies, fund managers, and investment banking departments.

[5]In 2022, Hong Hao, a China market sell-side analyst and the head of research at Bank of Communications International Holdings Co (BoCom International), departed from the state-owned brokerage firm after his social media accounts were censored following a series of negative commentaries about the Chinese market.

Of course, these two means of securing votes (producing research and providing "caretaker services") are not mutually exclusive, and both depend upon having good social networks.

6.2 | Asymmetries of both information and social connectedness

In response to problematic evaluations of analysts' performance and reputation, we find that sell-side analysts tend to privilege relational services to individuals with established social ties and those deemed worthy of such ties, thereby exacerbating asymmetries in social connectedness and information. As such, information asymmetry in capital markets tends to be amplified by asymmetry of social connections. For example, clients with weaker social connections appear to receive less attention and support from the sell-side:

> Analysts need to give clients a feeling of private service. For example, when you go to a bank, unlike ordinary customers, you don't need to wait in line. Just like when you go to a casino, people with large quotas go to a VIP area. (SS Analyst 6)

This analyst highlights the practice of providing differentiated services to clients based on their level of importance and strength of social ties. This approach, often referred to as "VIP treatment," serves to create a perception of exclusivity and privileged access for certain clients. However, as the following quote shows, it also perpetuates a system in which certain clients may be disadvantaged or excluded from receiving the same level of service and attention.

> We usually accompany clients, and only big clients are worth helping to make an appointment. For small clients, I will ignore them. But for big clients, I must accompany the client in person. (SS Analyst 17)

This privileging of larger clients is due to their typically having more voting power, making them more valuable individuals to establish social ties with. This also has implications for information dissemination through the social infrastructure. As noted above, information is not neutrally passed through the social infrastructure but can be distorted to suit the needs of particular (powerful) actors. Similarly, certain information does not reach everybody in the same way or at the same speed. Analysts may share exclusive information or insights with clients they have stronger relationships with, while withholding such information from other clients. This can lead to an uneven distribution of information in the market, disadvantaging those with weaker connections and potentially impacting the overall efficiency of capital markets, as the following quote highlights:

> The content of a public research report will not be affected, but it will affect my inclination. That is, I may give priority to expressing our true views to them, which is compliant. That is to say, I put everything that we have in public, but when we meet in private, I will say that I am really, very strongly optimistic about this company. There may be sharing of some additional information dimensions, and my enthusiasm will be higher. (SS Analyst 9)

This analyst acknowledges the impact of social ties on the provision of information, noting that while the content of public research reports may not be affected, private, in-person communications include a more detailed and enthusiastic sharing of information with clients with whom the analyst has strong social ties. Other analysts also highlight the potential for information asymmetry due to the influence of social connections:

> Superior information generates alpha, so when a client calls me, what they want is honestly to get this superior information. If I have it, and I think our relationship is relatively good, I will provide it. (SS Analyst 13)

Again, this analyst is very forthright about their disclosing certain information to some clients but not others. Informants also described their professional world to us as if it were a closed network structure of groups. Within the network of a small group, it is possible to be privy to private information. This is in line with the insight by Li et al. (2020) that information spills from socially connected analysts to their social networks. Therefore, the ability of sell-side analysts to function as intermediaries of information is shaped by the affordances imposed by their social ties. They cannot disseminate information they are not privy to, and they are not privy to information if they do not belong to a dense social network. This situation exacerbates existing information asymmetries among investors, particularly among different types of investors who possess varying levels of network access based on their size or capability.

7 | DISCUSSION AND CONCLUSION

This paper seeks to shed light on the opaque backstage of information intermediation in capital markets, showing how information flows between corporates, sell-side analysts, industry experts, and institutional investors. Specifically, we show how sell-side analysts, in particular, go about building a social infrastructure around them, creating linkages, conduits, and channels between otherwise distant individuals so that nonredundant information can flow with minimal hindrance (Granovetter, 1973, 2017). Whereas previous research on analysts recognizes the social dimension of analyst work (Abraham and Bamber, 2017; Graaf, 2018, 2023; Spence et al., 2019), we know very little about how they forge and maintain the social ties that ultimately guide economic action. We also know less about how these social connections are forged in different cultural contexts, and our focus on China offers specific insights into Chinese capital markets.

Specifically, we aim to address two research questions. The first question asks how analysts go about building and maintaining social ties with other key intermediaries and actors in capital markets. Drawing on Granovetter's theory of embeddedness (1973, 1985, 2017), all the while being sensitive to the cultural phenomenon of guanxi (Bian, 2022), we demonstrate how analysts purposefully cultivate both weak and strong ties, connecting with both acquaintances and friends or family members. In contrast to what might prevail in other cultural contexts, particularly the United States where Granovetter's original theories were developed, we identify several instances of personal and professional boundaries blurring in the Chinese environment. Establishing rapport and trust with potential clients or those who can evaluate analysts involved lots of nonprofessional activities, such as socializing and entertaining, and even extending to helping out family members of certain individuals. Even if instrumental in nature, this is reflective of a commitment and effort level that goes beyond the level of a casual acquaintance, imposing significant social demands upon the analyst in question. In turn, navigating these relational requests leads us to conclude that analysts in the Chinese context need to exhibit high degrees of social skill (Fligstein, 2001) in order to perform their roles effectively. Analysts need to work at building and maintaining relationships with other actors in capital markets such that future possibilities of cooperation remain open. This is consistent with wider literature on guanxi in business networks in China, which shows how individuals and firms often make "guanxi investments" (Nolan & Rowley, 2020, p. 115) in building and maintaining social ties.

The social infrastructure that analysts build is not a neutral one. Information does not pass through it freely without being filtered or directed more in certain directions than others. Just as some ties are stronger than others, information might be distorted in particular ways to promote particular types of market reaction, such as a favorable response to a particular company. This could reflect a strong tie between the company and an analyst in question or a strong tie between a buy-side client who is invested in said company and the analyst in question. Similarly, more intimate ties are associated with different types of interactions, such as private rather than public meetings or dinners together, where richer sources of information can be shared. Certain pockets of the social infrastructure are more densely networked and lead to more privileged information being shared as a result. Again, this runs somewhat counter to Granovetter's (2017) notion that densely networked areas lead to cliques who end up sharing redundant information. That might be true to some extent, but our data show how cliques can also share information that no one else has access to. In short, strong ties can be profitable in Chinese capital markets.

Our second research question explored how social ties constrain the functions of analyst work. This builds upon Granovetter's (1973) insight that microlevel social ties accrete into a larger social infrastructure that in turns shapes future microlevel interactions. Our findings suggest that social ties and the broader social structure they contribute to often distort the evaluation of sell-side analysts' performance, influence their incentive system, and guide their actions, exacerbating any existing asymmetries of information and social connectedness in capital markets. Analysts' social ties, especially with institutional investors, skew the evaluation of their performance, making the assessment subjective. This distorted and problematic evaluation of analysts' performance and reputation subsequently impacts their incentive systems. In some instances, analysts prioritize providing information and relational services to connected investors, further amplifying existing asymmetries of information and social connectedness. Given the dialectical nature of relational and informational aspects in capital markets, any amplification of either social or information asymmetry will lead to a downward spiral in which both are exacerbated, effectively institutionalizing stratification in capital markets and making incumbents more difficult to dislodge. In conceptual terms, this demonstrates how information asymmetry in capital markets has a social aspect to it, again demonstrating that the social infrastructure that shapes the "market for information" (Barker, 1998) is far from neutral, but is rather a reflection of the interpersonal dependencies and reciprocities that are built into each and every weak and strong social tie that makes up that social infrastructure.

In answering these two research questions, this study makes several contributions to the literature on sell-side analysts and capital markets. First, we broaden our understanding of the role of sell-side analysts in capital markets. While not disputing the various informational roles ascribed to analysts (Bradshaw et al., 2017) it is important to recognize, as some studies do, that these informational roles have a social basis.

Second, the microlevel practices related to forming, managing, and brokering social ties necessitate judgment and constant surveillance to determine which aspects of the social infrastructure require maintenance, repair, or upgrading. In this regard, financial analysts exhibit high degrees of social skill (Fligstein, 2001), keeping networks active so that future informational and economic exchange opportunities may be enacted quickly. While some analysts complain that they are made to feel like travel agents or nannies at times, we advance the notion here that they are infrastructural workers, simultaneously surveyors of a social infrastructure and mechanics engaged in the technical assembly of that infrastructure.

Third, the study sheds light on the interplay between informational and relational mechanisms in the market for information, revealing that asymmetries of social ties lead to asymmetries of information. This is an important insight because it is often presumed that information asymmetry is a bug of capital markets. Given the deeply embedded nature of informational and economic activity in capital markets, we consider asymmetry of information more of a feature of capital markets, a reflection of a social infrastructure that will inevitably be more densely networked in some areas than others.

For future research, the findings of this study provide several avenues for further exploration. First, it would be beneficial to test the specific ways in which analysts' brokering of weak and strong social ties impacts investment decisions. In the present paper, we show that such ties can prompt more optimism or pessimism about particular stocks. We do document or analyze the market reaction or trading behavior that follows on from this. Second, we look at a cross section of industry sectors here, but it may well be that analysts covering specific sectors are more prone to cultivating strong social ties than analysts in other sectors. Third, a deeper understanding of the dynamics of social ties and the role of sell-side analysts in different geographical contexts, including emerging and more developed markets, is warranted. Such work would helpfully throw into relief whether the present study's results, which are drawn from what is widely perceived to be a highly relational economy with strong political forces (Piotroski & Wong, 2012), are idiosyncratic or not. Indeed, the blurring of personal and professional boundaries has been shown to occur also in Western contexts (Westphal & Clement, 2008), so comparative work could usefully draw stronger contrasts between different countries in terms of the prevalence of strong social ties in networks of financial intermediation.

Fourth, our study is exploratory in nature and falls short of being able to measure the strength of particular ties between individuals in the way that more quantitatively oriented papers that are inspired by Granovetter do (see, e.g., Bian, 1997, 2022). Future work could seek to tabulate and measure more comprehensively the strength of social ties in the market for information in China and elsewhere with a view to assessing the impact of stronger and weaker ties on information quality, trading activity, investment performance, conflicts of interest, and so on. This would permit a continuation of the dialogue started here between Western (embeddedness) and Eastern (guanxi) conceptual perspectives. Such studies would be interesting not only for accounting but for the wider literature, exploring how guanxi manages to persist despite the presence of increasing market rationality and greater calls for meritocracy in China (Nolan & Rowley, 2020).

Fifth, our recognition that information asymmetry has social underpinnings could be fruitfully pursued by scholars interested in the former. Most studies in this respect adopt economic framings which emphasize the trading consequences of information asymmetry rather than any social antecedents to it. Sixth, we emphasize that building a social infrastructure is a necessary precursor to information exchange in capital markets. However, it has elsewhere been pointed out that analyst interactions do not always lead to information being exchanged but rather perform more symbolic, ritualistic functions (Abraham and Bamber, 2017). Understanding how social infrastructure facilitates other functions such as the provision of drama, comfort, or affect (Bamber & Abraham, 2020) would be worthy of additional investigation.

Finally, this is one of the few sociologically oriented papers to explore market relations in China. Many more such papers are needed. There is a growing literature on Chinese capital markets, but this is mostly dominated by economic frames. One of the key precepts of sociology is that economics cannot explain everything. A rounded understanding of Chinese capital markets and the actors that populate them therefore requires a range of different theoretical perspectives.

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ORCID

Guangyu Li https://orcid.org/0009-0002-8876-2175
Crawford Spence https://orcid.org/0000-0003-0355-8002
Zhong Chen https://orcid.org/0000-0001-7290-244X

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